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ECONOMIC ESSAYS

In honour of

GUSTAV CASSEL

ECONOMIC ESSAYS

In honour of

GUSTAV CASSEL

OCTOBER 20TH
1933

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SAVING IN THE DEPRESSION

JOHAN ÅKERMAN, *University of Lund*

I

LOOKING back over the economic discussion during the past ten years, the first thing that strikes us is the exchange of views that has been going on between two opposed schools, each of which considers that the principles underlying its own interpretation of economic changes are the correct ones. The one school represents, as we know, the purely monetary theory of economic cycles; the other school lays most stress on the cyclical changes in capitalization.

There is undoubtedly no higher testimony to Professor Gustav Cassel's position in the current economic debate of the past decade than the fact that no economist has been so persistently quoted by *both* these schools as has Professor Cassel. The monetary school, it will be recalled, has declared his memoranda and pamphlets on the monetary and financial problems of the day to be the clearest and most easily comprehensible expression of its views on the burning international questions connected with economic policy, while the school that is most deeply concerned with the cyclical changes in capitalization very frequently reverts to his singularly clear exposition of the theory of economic cycles, which regards the monetary factors as elements of secondary weight.* Thus, in his frequent contributions to the discussion of the past ten years, in which he has sought to throw light on the economic situation, Professor Cassel harmonizes his monetary interpretation of the economic changes with his exposition of the principles of equilibrium in a stationary or uniformly progressive world, whereas in his theory of economic cycles his reasoning is based entirely upon the realistic changes in time. The author of this paper would like at once to state that he associates himself with the *last-mentioned* non-monetary part of Professor Cassel's theory—that dating from 1904 and 1918, and dealing with the economic cycle—and that he is deeply indebted to this theory for any constructive contribution he may have been able to make to the knowledge of the nature of economic cycles.

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* The theory of monetary equilibrium is expounded in the third book of Professor Cassel's *Theory of Social Economy*, 1923, and in a great many of his writings from 1917 to 1933. The theory of economic cycles is dealt with in the fourth book of his *Theory of Social Economy*. Curiously enough, however, both these opposite lines of thought can be referred back to a much earlier stage of Professor Cassel's authorship. The conclusion that "the true rate of interest" is that which is necessary in order to prevent variations in the general price level is to be found in *The Nature and Necessity of Interest*, London, 1903, p. 168. (Cf. K. Wicksell, *Geldzins und Güterpreise*, Jena, 1898.) The theory of economic cycles propounded in his main work (*Theoretische Sozialökonomie*, 1918) already occurs fully worked out in all essentials in the article *Om kriser och dåliga tider* (*On Crises and Bad Times*), *Ekonomisk Tidskrift*, 1904—a study that should never be overlooked in any historical review of the doctrine of the cyclical theory. It is still—thirty years after it was written—well worth translating into one of the world-languages.

II

During the general depression that set in in the autumn of 1929 the discussion as to the best policy for alleviating the crisis has very closely followed the lines of the debate opened at an earlier period between the monetary and the capitalization schools. The pre-crisis supporters of the former theory regarded the fall in prices not as a consequence of the crisis but as its primary cause, and recommended as the universal remedy an increase in the volume of credit. Those who held the latter view, the capitalizationists, saw in the crisis the natural consequence of a disproportionately developed capitalization, and proposed the normal remedies, namely, an adjustment of costs, and especially of the monopolistically maintained cost elements, to a lower level, so as to make production—particularly in the hardest-hit investment industries—more profitable, and thus start a new cycle. It has thus become a struggle between "inflationists" and "deflationists," between "expansionists" and "contractionists." True, there is a large measure of agreement in these conflicting views, but it is the dissension between currency and banking schools that has, somehow or other, become the natural ground of controversy that seems to be indissolubly associated with every major crisis.* Owing, however, to the previous extraordinary rate of increase in the volume of new investment, to the political risk involved in the economic consequences of the War, and to the monopolistic pressure exerted on the factors of cost and especially on the wage level, the process of adjustment has had to take the form of Government intervention, whereas under former economic, political and social conditions one could rely upon automatic adjustment. As a result, many an economist who either consciously or unconsciously favours the principle of *laissez-faire* has turned inflationist.

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* In the northern countries various contributions in the form of pamphlets have been made to this discussion during the past year. The following authors may be cited in alphabetical order: J. Åkerman, *Economic Forecast and Reality*, Stockholm, 1933; G. Cassel, *Spara eller icke spara* (*To Save or Not to Save*), Stockholm, 1933; R. Frisch, *Sparing og cirkulationsregulering* (*Saving and Control of Money Circulation*), Oslo, 1933; G. Myrdal, *Konjunktur och offentlig hushållning* (*Trade Cycles and Public Finance*), Stockholm, 1933; B. Ohlin, *Ett konjunkturuppsvings förutsättningar och möjligheter* (*Premisses and Possibilities of a Revival*), Stockholm, 1933—as well as important articles in the Scandinavian reviews by K. Schønheyder, J. Warming, and F. Zeuthen. Discussions between

The problem has, however, been further complicated by the fact that it has to be regarded both as an internal and as an international question, seeing that the international gold standard has ceased to function since the autumn of 1931. The relation between price level and exchange rates has been found not to function at all in the manner anticipated owing to the fact that the depreciation was followed by the introduction of trade restrictions in the gold countries, so that countries with a depreciated currency have only been able to keep up their export by lowering export prices to the same extent as that by which the currency has depreciated. The price level has in 1930–32 continued to fall in both gold standard and paper standard countries. England and the Scandinavian countries having failed to induce a rise in prices by abandoning the gold standard, it has been imagined in many quarters that a rise in prices and a normal revival might be successfully achieved if the remaining gold countries were likewise to write down their currencies. But such an operation presupposes first of all a far closer international co-operation and a better internal control of the monetary system than actually exist at the present time, and secondly a more or less equal distribution of those interests that stand to gain by the adoption of those measures—and this is far from being the case at present either. Further, there is the decided objection that a rise in prices brought about by that means does not lead to that essential process of adjustment which must be the first step towards a revival; for any such process of adjustment arises out of a selective demand for certain articles and certain services obtained by the relative writing down of the fixed factors of cost—chiefly wages and bond interest. Our knowledge has been far too dearly bought; for our experience of the numerous currency

B. Ohlin and J. Åkerman on *Prisstegringens problem* (*The Problem of Price Elevation*) in *Det ekonomiska läget*, Stockholm, 1932, nrs. 3–4, and between J. Åkerman and R. Frisch in *Statsøkonomisk tidskrift*, Oslo, 1933, nrs. 2–3, on *Depressionens problem* (*The Problem of the Depression*), may also be mentioned.

devaluation booms in the 1920's shows that it is not a normal increase in employment that is brought about by inflationary means. After a short time we find ourselves in the position of having to choose between continued uncontrolled inflation or else credit restrictions and a new crisis accompanied by serious unemployment.

In face of these difficulties even those economists who are in favour of an international devaluation of currency have declared that in domestic policy one cannot merely wait and see, but that steps must be taken to cut down costs. This involves a reduction of current income in favour of investment—in other words, it implies an increase in saving. In the following discussion, then, we can confine ourselves to studying the problem of saving in a depression, on the assumption that we only have to consider the situation in one single country or in world economy regarded as one unit. The study of a century of economic cycles—as well as of the most recent depression—would appear strongly to support the assumption that the crux of the crisis problem consists not primarily in disturbances in international relations but in disturbances in the exchange between present and future goods.

III

As a background to the discussion of the problem before us we shall first state the essential features of the cyclical display, and we cannot do this better than by citing the following from Professor Cassel's study of the subject in 1904: "Good times are characterized by the community's forces of production being largely withdrawn from the function of supplying current needs and utilized for the creation of fixed capital, i.e. for purposes that primarily belong to the future."* Then comes the crisis, with its need for adjustment and adaptation. "The popular conception is undoubtedly that during bad times a great deal of money accumulates which cannot find suitable investment. A similar trend of thought is often observable even in scientific literature."† "It must however be remembered that from the bank's point of view deposits represent debts, and that the bank must have some assets to offset these debts. The bank is thus simply obliged to invest its funds in some way or other. If it wishes to avoid investing in the ordinary sense of the word, it can of course deposit its surplus funds in the central bank. But then this deposit becomes a debt incurred by the central bank, which in its turn has to retain some asset to cover this indebtedness. This asset may consist of bills discounted by the central bank, in which case, of course, the funds have been directly invested in business—advanced to traders and manufacturers who require money in order to maintain commodity stocks. The central bank may possibly buy Government bonds or Treasury bills, thereby lending money to the State, which invests it in its business activities in the form of buildings or establishments. Again, the central bank may convert its funds into gold or foreign balances. But in all these circumstances the money has to be invested somehow or other. The idea that monetary assets can exist in the air without any concrete equivalent whatsoever is manifestly wrong."*

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* *Ekonomisk Tidskrift*, 1904, p. 65.

† Ibid., p. 63.

There is thus no "free money" that merely requires to be "put into circulation" in order to raise the price level and restore prosperity. "If it is intended to pay for new State operations by taking up loans it must be remembered that the capital the State proposes to utilize for the purpose is already employed in economic life"†—it will thus entail a transfer of savings from private enterprise to State operations, in so far as the new loans do not induce fresh saving, i.e. a restriction of current consumption.

Finally, it is "quite a common idea that funds can be withdrawn from the future in order in times of depression like the present to provide work for the unemployed. It is supposed that there is a great deal of expenditure that in any case has to be borne at some future time, and that it is therefore best to bear it now when there is not enough work to go round. . . . This reasoning is however entirely false, since it is impossible to dispose of funds that are only available in the future";‡ and since, to put it more definitely, the future cannot be foreseen, all fresh capitalization is an experiment, the result of which can only be put to the test when the new means of production are ready for use. The idea that the budget need not be balanced because one can borrow from the future's increased incomes in order to relieve the difficult situation of the moment is thus based on a sophism.

It being, then, manifestly impossible during the depression to procure "unemployed money," impossible to create fresh capital goods merely by transferring loans from private to public enterprise, and impossible to obtain money from the future free of charge, we find that the desired new capitalization is only attainable by means of new saving, i.e. by the canalization of current income in the direction of manufacturing goods with a longer manufacturing period—that is to say, for the creation of means of production. Our task, then, is to examine the conditions and the forms calculated to effect such an increase in savings as can serve as a basis for increased capitalization, and thereby for a normal revival.

---

* Gustav Cassel, *Spara eller icke spara*, p. 17.

† Ibid., p. 50.

‡ Ibid., p. 53.

IV

The chief fault in the views here criticized lies, to my mind, in their inability to appreciate the temporal connection in the process of creating fresh capital goods.* It must be realized that, genetically speaking, credit is the crucial point in the time factor, that the entire function of credit is to bridge over the intervals of time determined by the processes of production. Loans for purposes of consumption do not have this implication, and there is therefore nothing inconsistent in the fact that those who think that the solution of the crisis lies in an increase in the circulation of money cannot grasp the significance of productive credit, which is, of course, the only credit form of importance, if economic activities are to be expanded on sound lines.

The savings required as a substructure for the creation of fresh capital goods must thus be associated with a certain period of time, viz. the average duration of the process of production. We find this point also dealt with in a passage written thirty years ago, in which the nature of the problem is defined in very clear terms: "When a person undertakes to supply the waiting required for a production process, the natural period for that waiting is at least as long as the period of production itself; and in waiting for the consumption of durable goods, money would naturally have to be invested for the whole period of consumption. Hence it may be said that waiting for *long periods* is the real and principal form of waiting."† If we apply these words to the crisis that set in in 1929, we shall realize their true significance. The very thing lacking during that depression was a supply of waiting for long periods; the supply of short credit, as expressed in extremely low short-money rates, has been ample, but the supply of real, productive credit for permanent investment has been lacking. All the efforts of an easy-money policy—purchasing bonds in the open market, lowering the discount rates by international agreement between the leading central banks, and such-like stimulating measures—proved of no avail.*

---

* Cf. D. H. Robertson, *Banking Policy and the Price Level*, London, 1926; J. Åkerman, *Om det ekonomiska livets rytmik*, Stockholm, 1928, and, in elementary form, *Economic Progress and Economic Crises*, Stockholm, 1931, London, 1932; F. A. Hayek, *Preise und Produktion*, Wien, 1931.

† G. Cassel, *Nature and Necessity of Interest*, p. 135. Thus we already find in this work, written three decades ago, a foundation of the thesis that saving in the depression is an essential prerequisite of a revival.

It is manifest, therefore, that the problem is closely bound up with the conditions making for productive saving, by which is meant waiting for long periods. It is this problem that we now propose briefly to examine.

V

We apparently have to deal, then, with three different kinds of saving, viz. *actual short saving*, *potential long saving*, and *actual long saving*.†

To take the term *actual short saving* first, this obviously finds expression in bank deposits subject to short notice of withdrawal. We have just pointed out that these deposits cannot be regarded as an expression for free savings awaiting investment. If this credit is to be redisposed of, it must be released from the real investments that lie behind it. Some of these investments, however, may be said to be in part not very productive—they consist, to a certain extent, of gold bullion. Now, if a portion of the credit that is thus tied up in non-productive liquidity reserves is mobilized and made to serve as a basis for the creation of fresh means of production, the short waiting has been converted into long waiting.

The question is, then, whether such a redisposal of credit is worthy to be regarded as a subject of primary importance in the discussion on the cyclical mechanism. There is only one single sum that can be said with any degree of certainty to be directly connected with the increase in the disposable liquidity reserve, and that is the amount added to the holdings of monetary bullion during the depression. The gold that flowed into the central banks in 1930–32 has thus not given rise to any increase of productive credit, and cannot therefore be regarded as an expression for short waiting—so long as it has not served as a basis for credit accommodation for covering losses. But this sum—about 1,750 million dollars—is, nevertheless, insignificant compared with the world's total volume of production. True, we might conceivably add to this sum liquidity reserves of another kind, but on the whole this supply of short saving cannot be regarded as a main factor in the problem of the distribution of the crisis.

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* Cf. J. Åkerman, *Some Lessons of the World Depression*, Stockholm, 1931; also W. W. Aldrich, *The Causes of the Present Depression and Possible Remedies*, Washington, D.C., 1933.

† The economists who have rendered the greatest service in differentiating between the various kinds of saving are, of course, A. Spiethoff and D. H. Robertson.

Potential long saving consists essentially of commodity stocks. The question is, then, whether these stocks are of such consequence that they may be regarded as large capital reserves on which fresh capitalization can be based. In recent years the scope of that quite valuable field of statistics which deals with commodity stocks has been enlarged and, what is still more important, their quality has been improved. The data now available do not however go further back than to the 1920's, so that we are still unable to state anything with certainty as to the movements of stocks during the "normal" pre-war period. If, therefore, we would determine the importance of the part which the changes in stocks play in the cyclical movement, we must assume that there really has been a cyclical movement during the past ten years—that there has in fact existed during the period a regular interrelation between economic progress and economic crises. This assumption is, in my view, quite defensible as a basis of argument, but it needs to be specially pointed out in order to avoid the possibility of misunderstanding.

The figures in the table are quoted from the available data concerning the changes in commodity stocks.*

Upon examining these figures we find that the typical cyclical movement of industrial production, which shows a rising tendency up to 1929, followed by a falling tendency, corresponds to an entirely similar change in the stocks in industry and the retail trade. In complete contrast to the popular idea that in the trough of a depression the factories and shops are chock-full of unsaleable goods, it is a fact that these stocks were heaviest during the boom in 1929 and very much smaller when the depression was at its worst in 1932.

It is very striking to observe, however, that stocks of staple commodities did not change in conformity with production, which may here be regarded as the basic index of economic cycles. We find that throughout the entire period the American staple commodities show a fairly regular rise, and this is still more clearly brought out by a

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* Sources: United States, *Survey of Current Business*; Germany, *Institut für Konjunkturforschung*; Sweden, *Sveriges Industriförbund*; The Netherlands, *De nederlandsche conjunctuur.*

CHANGES IN COMMODITY STOCKS

	1925	1926	1927	1928	1929	1930	1931	1932
UNITED STATES								
Index: 1923–25 = 100								
Stocks of staple commodities	104	121	127	127	149	152	174	180
Stocks of manufactures in industry . .	103	107	114	118	120	123	114	104
Stocks of manufactures in department stores	99	100	102	102	101	99	95	86
Total industrial production	104	108	106	111	119	96	81	63
GERMANY								
Changes in stocks, Billions of Reichsmark	+2·7	−2·5	+4·1	+2·6	—1·0	—4·0	—5·0	—
Total investment " " "	10·3	11·3	13·7	14·3	12·8	10·2	6·5	—
Total industrial production, 1928 = 100 . .	83	79	100	100	102	84	69	57
SWEDEN								
Index: 1930 = 100								
Stocks of consumption goods in industry	74	84	98	119	118	106	92	111
Total industrial production	90	93	96	104	110	106	93	87
THE NETHERLANDS								
Index: 1925–27 = 100								
Stocks in industry	96	103	100	111	160	159	152	—
Consumption of staple commodities . .	95	98	107	121	125	121	104	—

study of the statistics of world stocks. The following data showing the total production and stocks of a number of important articles are instructive:*

PRODUCTION, MONTHLY AVERAGE, AND STOCKS AT END OF YEAR

	1927	1928	1929	1930	1931	1932
Sugar, production†	22	23	23	24	20	18
Sugar, stocks†	41	43	55	70	86	87
Coffee, production‡	19	11	21	13	19	14
Coffee, stocks‡	110	110	150	195	220	185
Cotton, production‡	43	47	47	47	49	42
Cotton, stocks‡	100	76	79	140	190	230
Petroleum, production*	15	15	17	16	19	17
Petroleum, stocks*	72	76	82	80	75	69
Tin, production§	13	15	16	15	13	9
Tin, stocks§	16	25	28	53	62	57
Zinc, production§	109	117	121	116	83	65
Zinc, stocks§	38	42	73	140	138	125

* 1,000,000 tons. † 100,000 tons. ‡ 10,000 tons. § 1,000 tons.

In order to enable us to form an exact idea of the relation between stocks and production the above figures representing these two factors may be divided the one into the other, which gives us an index of the changes in stocks in relation to the changes in production. An index on this basis would work out as follows:

	1927	1928	1929	1930	1931	1932
Sugar	1·8	1·8	2·4	2·9	4·4	4·8
Coffee	5·8	10·0	7·2	14·7	11·7	13·3
Cotton	2·3	1·6	1·7	3·0	3·8	5·4
Petroleum	4·9	4·9	4·8	4·9	4·1	4·1
Tin	1·2	1·6	1·7	3·5	4·6	6·5
Zinc	0·3	0·3	0·6	1·2	1·4	1·9
Unweighted average	2·7	3·4	3·1	5·0	5·0	6·0

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* From *De nederlandsche conjunctuur*, 1933, nr. i., p. 1, and *London and Cambridge Economic Service.*

We see, then, that changes in stocks of staple commodities in relation to changes in production of the same commodities show the same tendency both before and after the crisis of 1929. For the year after the crisis this proportional figure shows a particularly strong rise—it is, strictly speaking, the only cyclical phenomenon; otherwise there is an uninterrupted rise throughout. The rise in the stocks of staple commodities must to a certain extent be a secular phenomenon and one that is connected with that change in production and marketing technique which we have been accustomed to call rationalization. This "over-production" of a secular and not of a cyclical type has been caused by the *sudden* rise in productivity, and the inability of the factors of consumption to adapt themselves thereto is in turn a consequence of a monopolistic determination of wages, prices, and long money rates. It is this fact that we see reflected in the increase of staple commodities in the boom years 1927-29 as well as in the slump years 1930–32.

Now, if we take the increase of stocks during the depression to be an expression for increased saving, we cannot attribute to this rise the importance attaching to a particularly characteristic feature during the present depression; on the contrary, the increase of stocks in proportion to production happens to be unusually small during this depression, for normally the proportional figures expressing the relation between stocks and production *fall* during the revival period and rise during the depression. For this very reason we cannot say that the increase of stocks during the present depression implies an adequate increase of saving out of which the new investment can arise. Moreover, the stocks of staple commodities differ considerably in size and only represent certain specific raw commodity markets. There is no question whatsoever of subsistence funds—including well-proportioned stores of all necessities of life—which on the basis of the average normal consumption are properly distributed and which might be transferred to the unemployed capital industries. In order therefore to create such necessary "rations" we shall have to bridge over large intervals of time and space; the raw materials must be converted in major or minor quantities—differing in different cases—into manufactured articles, but the whole of this process can only be set in motion in a normal revival by an increased demand on the part of those workers who are newly employed in the capital industries. Whenever therefore we find people regarding the relatively heavy stocks of certain staple commodities as an adequate excuse for a policy involving a general increase in purchasing power and consumption, we must attribute it partly to that fairly common occurrence in economics, an unwarranted generalization—as when one speaks, for instance, of "goods" and "money" without exactly specifying what is meant by those terms—and partly to the false premiss that a normal revival starts with an increased consumption of necessaries, when it is really a function of increased enterprise in the capital industries. For these reasons, then, we may reject the view that the increase of certain raw commodity stocks which has been going on during the depression represents an adequate increase in the supply of *potential* long saving as a basis of new investment.*

VI

When we are confronted with the question of *actual long saving* and its significance during the depression, we at once find that we must divide it up into voluntary saving and forced saving.

The significance of forced saving—engendered by a rising price level—has been thoroughly discussed during the past decades in connection with the attitude of the monetary theory towards investment. However, it should first of all be emphasized in this connection that voluntary saving plays an extremely important part—especially during the depression, when forced saving by inflation is of course non-existent. It is during this period that the investment of corporate savings is of great importance, for recourse is had to the corporations' reserves in order to enable them to retain their skilled staffs, to prevent the costs of production per produced unit from rising too high owing to the output being excessively below capacity, and to modernize the mechanical equipment at a time when producing for the market places no obstacles in the way of rationalizing the manufacturing process.†

If an increase of occupation is desired, it must first of all be directed to those branches of industry in which unemployment is most serious, that is to say, to the capital or investment industries. During the early part of the depression enterprises will not have recourse to the public for obtaining subscriptions to share and bond issues, they will rather resort to their bank balances for such re-investment in their respective businesses as may be decided upon. Our task then condenses down to solving the question: What conditions are capable of inducing this increased corporate re-investment? To which our answer must be: A rise in the general savings quota, which guarantees a steady growth of the volume of savings that may be placed at the disposal of the investment industries. The swelling of bank balances is therefore not a proof of "unused savings," but a necessary preliminary to an increase of investment within the corporations; an increase of voluntary savings is a necessary premiss to voluntary investment. This point affords a striking reminder of the necessity for abandoning a pure equilibrium analysis according to which savings and investment are supposed to be identical things because they might be concurrent in the long run. When industrial enterprises utilize their bank deposits for starting reinvestments, primarily in the form of a modernization of production, they take it for granted that this will not involve any "tapping" of bank credit. They anticipate that the community will compensate for this by fresh saving.

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* See further the author's *Economic Forecast and Reality*, Stockholm, 1933.

† The great importance of investment within corporations was stressed long ago by L. V. Birck.—R. Weydenhammer has recently shown that in 1929 corporate savings amounted to 63·5 % of the total sum of savings in the United States. (*Faulty Investment of Corporate Savings*, *American Economic Review*, March 1933.)

We are faced then with a twofold problem: first, we must ascertain what are the essential conditions governing the construction of new capital goods in the investment industries; second, we must determine the prerequisite for permanently increased saving, whereby the capitalization period may be able to ensure the necessary "rations" to the workers employed in the construction of industrial plant, machinery, and other means of production.

The *first* condition is fulfilled when the relation between actual sale price and actual costs of production forms an incentive for increasing production. This does not assume that the difference offers the prospect of normal interest on capital, for even as soon as any yield is obtained on the invested capital there is often some justification for increasing production in order thereby to lighten the burden on the fixed costs. The point to be stressed in this connection is that in the trough of a depression the capital industries that require time for their processes must count upon the actual profit. One cannot discount a future rise in the yield; this policy was tried many times in the course of the cyclical decline, but the attempt had always been penalized by an increase in the losses on unsold stocks and on sales at still further reduced prices.

The *second* prerequisite implies an increase in the will to save on such a scale as to provide grounds for a positive assurance that even for a comparatively long time ahead—i.e. during a period of normal revival—there will be an ever-increasing volume of savings as a basis for new investment. This second prerequisite thus involves not merely the knowledge that the dimensional height of the savings—in the form of increased bank deposits—is satisfactory, but also that the dimensional *length* of the savings, or rather their temporal dimension, i.e. extension into the future, is adequate.

If we combine these two conditions, which regard the principles underlying a normal revival from the standpoint of industry and the banking system, we find that theoretically they express two sides of the same phenomenon: a solution of the economic problem of the distribution of income by way of shifting the forces of production from production for immediate consumption to production of *means* of production, i.e. for future consumption.

If we now proceed from the question of voluntary saving to that of *forced saving*, we should at once divide up the problem into two sections. For the problem assumes an entirely different character in a purely socialized community and in a community that is either conducted on a system of private capital or under partial State control. In the former case we can simply require that labour be directed to the capital industries and that the current consumption, that is to say the standard of living, shall be kept down to a minimum. The problem of forced saving in this case becomes a purely political problem, although its undesirable economic consequences cannot be avoided and gradually make themselves increasingly felt. *Momentarily*, however, the entirely socialized community has succeeded in solving the problem of the depression.

In a community based more or less on a system of private enterprise, and in which production is conducted in the main by entrepreneurs, the situation is quite different. If an attempt is made to bring about a change, *under the assumption* that the community is socialized, it is like forcing a wedge in the structurally unaltered economic life of the community. The immediate effect of those State-conducted works financed by means of savings, loans, or the manufacture of new notes—apart from their influence on the trend of prices—is that enterprises that may possibly prove profitable are created instead of steps being taken to re-start already existing private enterprises which would undoubtedly yield a profit in better times. We will not deny that the State-conducted works exercise a secondary effect in the form of increased employment in certain capital industries, but the experience of recent years has clearly shown that this secondary effect has often been exaggerated.

It is thus the influence of public enterprise on the price level that is of primary importance. In the actual situation the real aim of State works is inflation, whether we call it "reflation" or "controlled inflation." It is desired by this means to bring about the rise in prices that is to make production profitable, something that has been thought either not desirable or not possible by reducing the costs of production.

The decisive question, then, is this: Are inflation and reduction of costs equivalent alternatives, which may be resorted to at discretion in order in the course of a deep depression to induce a normal revival? No, it is not a question of two similar alternatives but of two essentially different methods of intervention—and that for the following reasons: *In the first place*, the normal revival is a cumulative phenomenon in conjunction with a steady rise in the value of certain commodities for which there arises an increasing demand on the part of different producers according as the spirit of enterprise is stimulated; inflation, on the other hand, entails a flight to goods and plants by reason of an accelerated depreciation of the monetary value. *In the second place*, the normal revival involves an internal transformation of production and distribution owing to the fact that more and more productive forces are brought to bear on the future—the ascending part of the business cycle is a period of capitalization, which, in the first stages at least, is evenly distributed; an inflation does not essentially involve capitalization but a steadily increasing tendency for the purchasing-power to become bound up in fixed and mobile real capital—the means of production created during such a period are from the very outset unevenly distributed, because in the event of a flight to goods and plants *there is no time to feel one's way*. *In the third place*, in a normal revival it is the technical and commercial problems that are the deciding factors in investment, whereas during an inflation the main stress is laid on the actual credit operation. Here, too, we have proof that inflation is an external change, which is not comparable with a normal revival, which forms a link in the chain of economic progress.

It is quite true that in every normal boom there is a major or minor inflational element, but this inflation does not come to a head until the final prosperity phase of the cycle sets in. The problem that faces us here is not how in a greater or less degree to stimulate a boom by monetary means but rather how to bring about the conditions precedent to a normal revival when in the trough of a depression. The difference in the nature of these two aspects of the problem cannot be too strongly emphasized.

VII

If N is the national income, R that part of the current national income which is invested and thus reintroduced into the mechanism of production, we obtain the savings quota q from the formula

$$q = \frac{R}{N - R}$$

We have seen from the above observations that the problem of the depression consists essentially in creating the conditions necessary to permit of a steady rise of q. *The problem is not to regulate the general price level—a statistical conception the economic meaning of which has been more and more doubted*—by changes in the rate of interest, but to regulate economic progress and thus economic cycles and crisis by changes in the savings quota.*† During the depressions experienced in the course of the four or five decades preceding the outbreak of the Great War, such a rise of q occurred on the whole automatically: wages were lowered, long-term interest rates were reduced by bond conversions and the general lowering of the rates of interest; in fact, a general process of readjustment took place. Upon a study of the cyclical changes during the past decade, the first thing that strikes us is, of course, that this adjustment has been seriously hampered by a monopolistic regulation of prices; on the labour market the level of real wages has in many countries—such as England and Sweden—risen higher during the depression of 1929–32 than during the previous prosperous years 1926–29, a fact that is obviously attributable to trade union policy; on the commodity market, the prices of certain raw materials have scarcely been reduced at all, while others have dropped heavily, though many finished goods in the retail trade have suffered no ill effects from the crisis—all this being due to the tendencies to amalgamation in different forms of production and in trade; within the credit system efforts have been made as far as possible to continue granting credit to those who were previously allowed credit facilities, in order thereby to rescue these investments of an earlier period, though it has meant a starvation diet for fresh enterprise; heightened trade barriers and subventioned shipping lines, in spite of apparent over-production of tonnage, are the most obvious examples of actual trend in the sphere of State economics; in the sphere of international financial policy Reparations and Inter-allied Debts have created a fictitious situation, which is determined by the economic consequences of the Great War. We are thus justified in speaking of a labour monopoly, a price monopoly, a credit monopoly, a State monopoly, and a financial monopoly. All these monopolies have laid fresh obstacles in the way of adjustment in addition to those that already existed in the pre-War world owing to the fact that all economic institutions are independent, non-fungible units, whose reorganization can only be carried out with friction and is therefore a process that takes time.

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* Of these critics G. Haberler, *Der Sinn der Indexzahlen*, Tübingen, 1927, takes a prominent place. The author may be allowed to mention his own scrutiny of the purely monetary theory in *Penningvärde och konjunktur*, *Statsvetenskaplig tidskrift*, Lund, 1923, and *Prisnivån och räntepolitiken*, *Nationalekonomiska föreningens förhandlingar*, Stockholm, 1930. The criticism which has been levelled against the purchasing power parity concept by Aftalion and other economists gathers momentum by the revision of the opinion on the meaning of the price-level concept, both factors in the purchasing power relation being subjected to revisal.

† Cf. the author's *En konjunkturteoretisk problemställning*, *Ekonomisk tidskrift*, 1932, which is an attempt to give a general explanation of the economic cycle from this point of view. In *Depressionens problem*, *Statsökonomisk tidskrift*, 1933, this line of thought is brought in contact with the problems of the world economic depression.

But genetically of still greater importance than these enhanced monopolistic tendencies, which have aggravated and prolonged the world economic crisis, stress must be laid on the underlying causes of the intensity of the present crisis—the expansional tendencies. As this factor has direct reference to the problem here under discussion, we must touch briefly upon the subject. Let us take three separate periods in the development of the industrial countries—1873–95, 1896–1914, and 1920–33. If during these periods we observe the three following fundamental phenomena, viz. the increase of the population, the expansion of production, and the secular trend of the price level, we shall be able in the table on the following page to determine the general tendency, taking +1, +2, and +3 to denote different degrees of increase and —1, —2, and —3 different degrees of diminution.

This picture of the development during the different phases, though very approximate, nevertheless emphasizes the main features. The *per capita* expansion of production shows a tendency to rise in all the periods, and during the latest period has reached a very high figure. It follows that all the disturbing factors that accompany rapid expansion are bound to be specially pronounced in the situation at this moment. Never so conspicuously as now has the crisis shown itself to be the obvious price to be paid for rapid progress.

Comparing, however, the figures for the expansion of production: increase of population with the figures for the change of the price level, we find circumstances tending still further to aggravate this crisis-creating factor. During the period 1873–95 it is a manifest tension between these two, and the falling price level combined with the increasing productivity gives rise during this period to talk of "over-production" and "lack of money." It would have been more correct to say that the rise in the value of money made faulty investment through inflation impossible, and that the rise of the level of real wages involved an adjustment of the distribution of income, which was very uneven at the beginning of the period. During the phase 1896–1914, however, the entrepreneurs and shareholders are favoured at the expense of the other earners of income. There exists a parallelism between the *per capita* expansion of production and the rise of the price level. Here we may reasonably expect to find a more pronounced tendency to faulty investment, the liquidation of which is postponed and actually takes place simultaneously with that of the economic consequences of the War. We find the 1920's then to be the period that is bound to witness an adjustment of those crisis-creating factors that had evolved during the years 1896-1920. *The tension between productive expansion and price change is now greater than it has ever been*: the readjustment of the production and consumption groups which such a situation entails must be of a very radical nature.

	1873–95	1896–1914	1920–33
Increase of population	+2	+1	+½
Expansion of production	+1	+2	+3
Expansion of production : increase of population	+½	+2	+6
Change of the price level	−2	+2	−2

It is no matter for surprise that the present period's adjustment process, if viewed against the background of the tendencies to expansion and monopolization, must be of a very serious kind. Under such circumstances a major depression must need extremely resolute intervention; it is not enough merely to rely upon time to produce a remedy.

On the contrary, we may point to the criticism that is brought with increasing frequency against the idea that the economic cycle—which is wrongly identified by many with the cyclical movement of the price level—could be controlled by changes in the discount rate.* It must be supposed that all the central factors that govern q are made to assume the fundamental positions suitable for a normal revival. This, of course, implies first of all that not only the interest level but also the wage level and perhaps commodity prices as well are brought under uniform control. In the political aspect of the matter we are again facing the fact that a smoothing of economic cycles—if economic progress is not too vertiginal—may be attempted with some success in a community governed by private enterprise and also in a socialized community, but that the auspices are less bright in a "mixed community" where some parts are monopolized and other parts are ruled by *laissez-faire*.

Our above reasoning has been based on the assumption that we were dealing with a given industrial country or else all industrial countries taken as one unit. This is also our attitude towards the problem when we anticipate a system of co-operation between the central banks under the aegis of the Bank for International Settlements. But then the question arises whether we must not from the very outset widen the aspect of the problem. However little the present international situation may invite speculation in economic control by an international organization, it must, nevertheless, be realized that the problem of regulating the economic cycle and the price level is far too wide to be covered by a common discount policy. At the root of the question is a control of the quota indicating the relation between present and future production, and this quota, the savings quota, is at least as dependent upon the wage policy as upon the discount policy, besides which, such phenomena as rationalization, the hire purchase trade, and speculative credit may either directly or indirectly exercise very considerable influence, as was clearly demonstrated by the crisis of 1929.

If, then, we analyse the cyclical changes in the sphere of production and the distribution of wealth—a process closely connected with the cyclical variations of the savings quota—we are led to the conclusion that the problem of starting a normal revival from the trough of a deep depression is not to be regarded as a monetary problem independent of the cyclical movement and all its attendant complications.

* See, for instance, the author's presentation of the case in *Det ekonomiska läget*, Stockholm, June 1, 1931, pp. 19–20.

VIII

We began this paper with a reference to the two schools—the purely monetary school and the capitalization school—which so highly colour the discussion that has been going on for so long about the crisis. In discussing the policy that in the trough of the depression ought to be adopted without detriment to the future, we find ourselves face to face with these two modes of thought. The monetary school frequently reasons as follows: A disturbance has arisen in the international exchange of goods and in the international movements of capital, and this in turn affects the exchange rates and the relations between the purchasing power of the different currencies. As a result of this shifting process the gold movements will acquire a unilateral tendency, and a scarcity of gold will rise in consequence of the concentration of gold within one or two countries. Although gold has actually ceased to fulfil its true function in the gold standard system, the prevailing scarcity of gold is influencing the central banks' monetary policy, which is becoming far too restrictive. This leads to a fall in prices, and hard on the heels of this general fall in prices, which is the *cause* of the crisis, the international depression sets in. We see how this reasoning lays all the stress on the monetary and banking conditions, and how, further, the entire causal connection that leads up to the crisis is conceived as a circulation process, which has been hindered by "stoppages in the pipes." According to this view, the way out of the depression must be to remove these hindrances, increase the quantity of money, and thereby raise the price level to that prevailing at the outset of the crisis.

The other school, whose views are shared by the author, regards the whole of this course of events practically the other way round, in that the order of sequence is reversed as between the different links in the chain. First and foremost, however, it is to be observed that the crisis is here conceived of as a consequence of the development during the previous boom period. The whole trend of the development—faulty investment and the monopolistic tendencies resulting in the immobilization of the units of production and consumption (see under VII above)—of necessity leads up to a crisis and readjustment. The fall in prices is merely a symptom of the crisis, of the emergence of all the disproportionalities in the production and consumption—and thus in the pricing—process as actual facts. The uneven distribution of gold, the disturbances in the exchange relations between the different countries, which may lead to the abandonment of the gold standard, are viewed according to this way of thinking as consequential phenomena arising out of the underlying cause of the crisis, an adjustment delayed and rendered difficult by economic and political factors.* The crisis is here not conceived of as primarily connected with disturbances in the process of circulation, but as having essentially arisen out of the disturbances that are associated with the *expansional and monopolistic tendencies.* The practical problem of crises may from this point of view be defined as the problem of *controlling the technical and social factors of acceleration.*

The question therefore is whether an assured revival after such a crisis and depression can be achieved by the adoption of measures aiming exclusively at raising the price level, or by pursuing an economic policy that sets out to increase the savings quota and thus brings the problem in line with that involved in past depressions and their gradual dispersion. The question is whether the problem is purely and simply a monetary problem, or whether it is essentially related to the problem of economic cycles with its political and economical complications. The question is whether it can be solved as if it were in principle a problem of equilibrium, or whether it necessarily involves taking the real time changes into account. How the author would answer these questions will no doubt have been fairly clearly seen from the views presented above.

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* Cf. F. v. Hayek in *Der Stand und die nächste Zukunft der Konjunkturforschung*, Munich, 1933, p. 110; also E. Schiff, *Kapitalbildung und Kapitalaufzehrung im Konjunkturverlauf*, Vienna, 1933.

BEGRIFFLICHES UND GRUNDSÄTZLICHES ZUR WERT- UND PREISLEHRE

ALFRED AMONN, *Universität Bern*

I. DIE BEGRIFFE "WERT" UND "PREIS"

IN der älteren, namentlich in der klassischen Literatur hat man zur Bezeichnung des zentralen Tatbestandes der modernen individualistisch organisierten gesellschaftlichen Wirtschaft, jenes Tatbestandes, der eben wegen seiner zentralen Stellung und Bedeutung in diesem Wirtschaftssystem zugleich zum Anlass der theoretisch-nationalökonomischen Grundproblemstellung geworden ist, in der Regel den Ausdruck "*Wert*" ("valeur," "value") verwendet. In neuerer Zeit ist es üblich geworden, den Ausdruck "Wert" vornehmlich zur Bezeichnung eines Phänomens zu verwenden, das von jenem zentralen Tatbestand der modernen *individualistisch organisierten gesellschaftlichen* Wirtschaft verschieden und an sich überhaupt nicht gesellschaftlichwirtschaftlicher, also "nationalökonomischer," sondern rein *individualwirtschaftlicher* Natur ist, wenn es auch als solches einen *jenen* Tatbestand bestimmenden, bzw. *mit*bestimmenden Faktor bedeutet. Mit anderen Worten: Früher hat man den Ausdruck "Wert" zur Bezeichnung dessen, was man irgendwie definiert und genauer als "*objektiven Tauschwert*" bezeichnet, verwendet, wenn man heute dagegen von "Wert" ohne weiteren Zusatz spricht, so meint man damit gewöhnlich das, was man irgendwie definiert und genauer als "*subjektiven* Wert" oder "Wert*schätzung*" bezeichnet. Zur Bezeichnung jenes Grundtatbestandes der modernen gesellschaftlichen Wirtschaft verwendet man dann in der Regel das Wort "*Preis*," das ja auch in der *älteren* Literatur ebenfalls schon *neben* dem Wort "Wert" zur Bezeichnung des gleichen Tatbestandes verwendet worden ist. Die Ausdrücke "Wert" und "Preis" werden also in *diesem* Sinne für identisch genommen. D.h., wenn man heute von "Preis" spricht, so wird das als eine dem früheren Gebrauch des Wortes "Wert" identische Ausdrucksweise betrachtet. Zwischen den Begriffen "Preis" und "Wert" im *heutigen* Sinne besteht aber dann ein ganz grundsätzlicher und fundamentaler Unterschied, indem "Preis" einen *gesellschaftlichen* und *objektiven* Tatbestand, "Wert" dagegen einen rein *individual* wirtschaftlichen und *subjektiven* Tatbestand bedeutet. Es erhebt sich nun die *Frage*, ob die *Identifizierung* von "Wert" im Sinne von objektivem Tauschwert und "Preis" wissenschaftlich *gerechtfertigt* und *zweckmässig* ist oder ob damit nicht auch *für die Wissenschaft wesentliche* Unterschiede zu Boden fallen.

Da ist zunächst festzustellen, dass *im gemeinen Sprachgebrauch* — und der gemeine Sprachgebrauch kann, wo es sich um alltägliche Dinge, bzw. Erscheinungen handelt, die Gegenstand der Betrachtung sind, nicht unberücksichtigt bleiben, wenn er auch nicht schlechterdings als massgebend betrachtet werden darf, — ein ganz *grundsätzlicher Unterschied* zwischen "Wert" und "Preis" gemacht wird, auch wenn beides im objektiven und gesellschaftlichen Sinne verstanden wird. Unter "*Preis*" versteht man da schlechthin die *Geld*summe, gegen welche ein Gut im wirtschaftlichen Verkehr hingegeben wird, bzw. welche für es "bezahlt" wird, oder "gegen welche es *ausgetauscht* wird," also das *Austausch*verhältnis eines Gutes *dem Gelde gegenüber*, unter "*Wert*" dagegen versteht man etwas, was *hinter dieser Geldsumme* steht, eine *reale Gütermenge*, nämlich die *Menge anderer Güter*, welche man für dieselbe Geldsumme "sonst haben könnte." Die *Geld*summe, gegen welche ein Gut ausgetauscht wird, *ist nicht* der "Wert" dieses Gutes, ist an und für sich überhaupt kein "Wert," sondern *hat* selbst erst einen "Wert" — in der damit zu erlangenden, einzutauschenden Gütermenge — und dieser "Wert" ist zugleich *der* "Wert," den jenes gegen eine bestimmte Geldsumme vertauschbare Gut hat. Der "Wert" ist also die Vertauschbarkeit eines Gutes gegen bestimmte Mengen anderer *Güter*, der "Preis" seine Vertauschbarkeit gegen eine bestimmte *Geld*summe. Wenn wir zum Beispiel vom "Wert" eines bestimmten Ringes im wirtschaftlichen Verkehr sprechen, so meinen wir damit nicht schlechthin die *Geld*summe, gegen welche er verkauft werden kann, sagen wir 100£, sondern die Menge anderer Güter, die man an seiner statt haben kann, indem man ihn für jene Geldsumme verkauft und dafür andere Güter kauft. Wir *drücken* den "Wert" allerdings in einer Geldsumme *aus*, aber wir können dies nur insoferne, als wir uns unter der Geldsumme eben einen bestimmten "Wert" vorstellen, d.h., wenn auch in noch so vager Weise, an die Möglichkeit denken, dass man mit dieser Geldsumme sich eine bestimmte Menge anderer Güter verschaffen kann. Wenn jemand keine Ahnung hat, was man für 100£ kaufen kann, dann bedeutet der Ausdruck 100£ für ihn eben *keinen Wert*ausdruck, dann hat man ihm inbezug auf den "Wert" jenes Ringes gar nichts gesagt, wenn man sagt, er sei seine 100£ "wert"; dieser Ausdruck wäre für ihn vollkommen unverständlich und sinnlo, insoferne man ihn nicht zunächst darüber aufklärt, was 100£ "wert" sind. Wohl aber ist für ihn der "Preis" des Ringes völlig klar und exakt angegeben, wenn man ihm sagt, er "koste" 100£. Für jenen, der weiss, was man für 100£ kaufen kann, sind jene beiden Ausdrücke allerdings gleichbedeutend, aber um dies zu sein, muss er eben *mehr* wissen als, dass man für den Ring im wirtschaftlichen Verkehr 100£ erhalten kann.

Unter "Preis" versteht man also im gewöhnlichen Sprachgebrauch das Austauschverhältnis eines Gutes gegenüber dem *Gelde*. Wer dieses Austauschverhältnis kennt, *weiss* damit seinen *Preis*, aber er weiss damit, wenn er nichts anderes kennt, nichts über seinen "Wert." Unter "*Wert*" versteht man das Austauschverhältnis eines Gutes *gegenüber den anderen Gütern*. Das kann man allerdings auch nicht anders ausdrücken als durch eine Geldsumme, aber es kann durch diese Geldsumme nur dann ausgedrückt werden, wenn man mit ihr eine gewisse Vorstellung darüber, was sie an "Güterwert" *bedeutet*, verbindet. Dabei ist allerdings auch zu beachten, dass man vom "Wert" eines Gutes im gewöhnlichen Leben auch dann noch nichts ausgesagt hat, wenn man sein Austauschverhältnis gegenüber einem bestimmten einzelnen anderen Gut angegeben hat, woferne man nicht wieder *zugleich* an das Austauschverhältnis zwischen diesem Gut und den anderen Gütern denkt. Unter "Wert" versteht man nicht das Austauschverhältnis eines Gutes gegenüber *einem* andern Gut, sondern das Austauschverhältnis eines Gutes gegenüber *den* anderen Gütern ganz allgemein, *prinzipiell* gegenüber *allen* anderen Gütern, die Gegenstand des Tauschverkehrs sind, *praktisch* gegenüber *den* anderen Gütern, die jenes Wirtschaftssubjekt, für das die "Wert"aussage gemacht wird, regelmässig braucht und erwirbt.* (Für dieses Wirtschaftssubjekt hat die "Wert"aussage doch in letzter Linie einen subjektiven Sinn, aber sie hat deshalb keinen allgemein subjektiven Inhalt, was es ja nicht gibt, sondern bezieht sich—unter verschiedenen Individuen verstanden—immer nur auf *Gütermengen*.)

Aber das—Beziehung auf Geld und Beziehung auf Güter—ist nicht der einzige Unterschied, der zwischen den Begriffen "Preis" und "Wert," so wie wir sie im gewöhnlichen Sprachgebrauch antreffen, besteht. Es besteht noch ein weiterer Unterschied. Unter "Preis" versteht man im gewöhnlichen Leben *jedwedes beliebiges* Austauschverhältnis eines Gutes gegenüber dem Gelde, sowohl ein einzelnes, zufälliges, nur unter ganz besonderen Umständen und insoferne einmalig sich realisierendes Austauschverhältnis des Gutes gegenüber dem Gelde, wie auch ein sich regelmässig, wiederholt in gleicher Weise sich realisierendes Austauschverhältnis, ein Austauschverhältnis, "mit dem man rechnen kann." Der Preis, zu dem ein Gut "unter Freunden" oder "unter Brüdern" verkauft wird, ist ebenso ein "Preis," wie ein Preis, zu dem ein mit den Verhältnissen nicht vertrauter Unbekannter überhalten wird, und der "Ausverkaufs"preis oder der Versteigerungspreis ebenso wie der normale "Ladenpreis." Aber, wenn wir von "Wert" sprechen, denken wir dabei nie an ein x-beliebiges Austauschverhältnis, das sich irgendwann und irgendwo einmal vielleicht realisiert, sondern *immer* und *grundsätzlich nur* an ein sich regelmässig verwirklichendes und mit dem Charakter der Dauer oder Wiederkehr behaftetes Austauschverhältnis zwischen einem Gut und den anderen Gütern. Im Begriff "Wert" ist die Vorstellung der Wiederholung, der Wiederkehr, der Dauer, der Regelmässigkeit *wesentlich enthalten*. Unter "Wert" verstehen wir *nur* das *regelmässige* Austauschverhältnis eines Gutes gegenüber den anderen Gütern, und wenn es ein solches regelmässiges Austauschverhältnis nicht gibt, weil die Wirtschaftsverhältnisse so unstabil sind, dass mit einem fortdauernden Schwanken und mit fortwährenden Verschiebungen der Austauschverhältnisse zwischen den Gütern gerechnet werden muss, können wir nicht von "Wert" sprechen. Wohl aber sprechen wir dann offenbar immer noch von "Preisen"; denn jener Tatbestand, den wir "Preis" nennen, besteht gleichwohl weiter, wenn auch der Tatbestand, den wir "Wert" nennen, zu existieren aufgehört hat, bzw. eben gerade nicht existiert. Um von "Wert" sprechen zu können ist es notwendig, dass mit der Aufrechterhaltung der gerade bestehenden Austauschverhältnisse zwischen den Gütern wenigstens "für die nächste Zeit" gerechnet werden kann.

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* Wenn also *Ricardo* den "Wert" ("Value") definiert als die "Menge irgendeines anderen Gutes" ("of any other commodity") so darf darunter nicht ein einzelnes Gut verstanden werden, sondern *jedes* andere Gut.

Auf Grund dieser Erkenntnis lässt sich nun auch die Beziehung zwischen den Begriffen "Wert" und "Preis," wie sie im gewöhnlichen Sprachgebrauch gegeben sind und verwendet werden, noch näher und genauer definieren. Der "Wert" eines Gutes wird durch seinen "Preis" *ausgedrückt* — der "Preis" *ist nicht* sein "Wert," *sondern* nur der *Ausdruck* seines "Wertes" — aber *nicht* in *jedem* sich im Leben realisierenden "Preis" eines Gutes kann der Ausdruck seines "Wertes" gesehen werden, *sondern* nur in dem sich *regelmässig, auf dem Markte* realisierenden "Preis" dieses Gutes und auch das *nur unter der Voraussetzung*, dass *auch die anderen Güter* einen *regelmässigen* "Preis" haben. Damit der "Preis" eines Gutes als Ausdruck seines "Wertes" betrachtet werden kann, ist notwendig, dass die Preise *aller* Güter gegeben sind und in einem bestimmten, sich *gleichbleibenden* Verhältnis zueinander stehen. Sobald sich dieses Verhältnis ändert, hat sich der "Wert" eines Gutes geändert, auch wenn sein Preis gleichgeblieben ist, und der "Wert" eines Gutes kann vollständig unverändert bleiben, auch wenn der "Preis" dieses Gutes sich ändert, vorausgesetzt, dass auch die Preise aller anderen Güter sich in einer Weise ändern, dass das Verhältnis zwischen dem Preis jenes Gutes und den Preisen dieser anderen Güter gleichgeblieben ist. Es kann also der "Wert" eines Gutes sich ändern, während sein "Preis" vollständig gleichbleibt, und es können alle Preise sich ändern, während die "Werte" der Güter vollständig gleichbleiben. Das ist nun offenbar für die Wirtschaft nicht unwichtig und deshalb ist auch diese Unterscheidung zwischen "Wert" und "Preis" wichtig.

Es fragt sich nun, ob man auch in der Wissenschaft an dieser Unterscheidung zwischen "Wert" und "Preis" im angegebenen Sinn, die die Praxis des Lebens ganz streng und prinzipiell macht, festhalten soll oder ob man sie da fallen lassen soll, "weil man sie nicht braucht." Um diese Frage richtig beantworten zu können, müssen wir uns an den *Problemen* orientieren, mit denen wir es in der Wissenschaft inbezug auf die durch jene Worte bezeichneten, bzw. in jenen Begriffen zum Ausdruck gebrachten Tatbestände oder Vorstellungen zu tun haben. Welches ist nun das Grundproblem, mit dem wir es da zu tun haben? Es ist offenbar die Frage nach der *Art und Weise der Bestimmtheit* des *regelmässigen Austauschverhältnisses zwischen den Gütern*, deren Beantwortung die Grundlage bilden soll für die Lösung der Frage nach der *Art und Weise der Bestimmtheit der Einkommen*, bzw. der verschiedenen Einkommensarten. Es handelt sich also um ein Problem des "Wertes" der Güter und nicht um ein Problem des "Preises" in jenem allgemeinen und für sich bestehenden Sinn. Damit ist nicht gesagt, dass es sich *nicht auch* um "*Preis*"probleme handelt. Aber in erster Linie handelt es sich um das "*Wert*"problem in jenem Sinn. Insoferne nun aber der "Wert" eines Gutes ausgedrückt wird durch seinen "Preis" — unter der Voraussetzung, dass auch die Preise der anderen Güter eine gegebene und sich gleichbleibende Grösse haben — kommt es auf dasselbe heraus, wenn wir die *Bestimmtheit der regelmässigen Preise* der Güter *anstatt* die Bestimmtheit ihres gegenseitigen Austauschverhältnisses betrachten und untersuchen. *Unter jener Voraussetzung* fallen also — können wir sagen — das "Wert"- und "Preis"problem zusammen. *Unter jener Voraussetzung* interessieren uns die "Preise" als Ausdruck des "Wertes" der Güter, aber sie interessieren uns nicht schlechthin. Es interessieren uns vor allem nicht alle die einmaligen Preise, die Zufallspreise, die Ausnahmspreise, die stets veränderlichen Preise. Wenn wir also in der Theorie von "Preisen" sprechen, so meinen wir in der Regel damit ganz bestimmte Preise, bzw. Preise unter ganz bestimmten Voraussetzungen. Wir meinen die Preise, die Ausdruck des "Wertes" der Güter sind, dessen Bestimmtheit wir eben erkennen wollen.

Also könnte man stillschweigend unter "Preise" immer *solche* Preise verstehn und wie von "Wertproblem" und "Preisproblem" ebenso auch von "Wert" und "Preis" schlechthin im identischen Sinn sprechen, d.h. die Begriffe "Wert" und "Preis" selbst für identisch nehmen. Das wäre indessen nur richtig und zweckmässig, wenn uns immer und ausdrücklich *nur* solche Preise, bzw. nur das Verhältnis zwischen den Preisen der verschiedenen Güter interessieren würden. Dann wäre jener Unterschied, den die Gemeinsprache macht, wenn sie von "Wert" und "Preis" in verschiedenem Sinne spricht, für die Wissenschaft ohne Bedeutung. Dies ist aber nicht der Fall. Auch uns in der Wissenschaft interessiert in mancher Beziehung jener Unterschied, d.h. die Preise interessieren uns nicht nur, insoferne sie den "Wert" der Güter ausdrücken, sondern in mancher Beziehung auch als "Preise" an und für sich. Es interessiert uns z.B. das Austauschverhältnis zwischen den Gütern und dem Gelde an und für sich und nicht nur insoferne in diesem Austauschverhältnis das regelmässige Austauschverhältnis zwischen ihnen untereinander zum Ausdruck kommt. Es interessiert uns unter Umständen die Frage der Höhe der "Preise" schlechthin, wie bei der Frage des allgemeinen Preisniveaus. Es interessieren uns die Verschiebungen oder Veränderungen des allgemeinen Preisniveaus. Es interessieren uns die Wirkungen der Veränderungen im Geldumlauf auf die Preise auch abgesehen von etwaigen Verschiebungen, die dadurch in dem Verhältnis zwischen den Preisen der verschiedenen Güter entstehen können. Der Unterschied z.B. zwischen "Wert" und "Preis," der darin zum Ausdruck kommt, dass sich die Preise aller Güter ändern können, während ihr "Wert" der gleiche bleibt, interessiert uns auch in der Wissenschaft. Ebenso interessiert uns auch die andere Tatsache, dass der "Preis" eines Gutes unverändert bleiben, sein "Wert" aber sich trotzdem verändern kann. Deshalb ist jener Unterschied auch für die Wissenschaft von Bedeutung und deshalb dürfen wir die Begriffe "Wert" und "Preis" nicht einfach miteinander identifizieren, sondern müssen an der Unterscheidung zwischen "Wert" und "Preis," so wie wir sie auch im gewöhnlichen Leben machen, festhalten.* Wir haben es in der Wissenschaft in erster Linie mit dem "Wert" der Güter zu tun und mit jenen "Preisen," in denen der "Wert" zum Ausdruck kommt. Wir haben es aber auch mit den "Preisen" der Güter in anderer Beziehung zu tun, wenn auch nicht mit den "Preisen" schlechthin, mit *allen* Preisen oder x-beliebigen Preisen. Wir können also wohl vom "Wert-" und "Preisproblem" im identischen Sinne sprechen, indem wir dabei unter "Preis" Preise in ganz bestimmten stillschweigend vorausgesetztem Sinne verstehn, aber wir dürfen nicht "Wert" und "Preis" schlechthin gleichsetzen, die *Begriffe* "Wert" und "Preis" miteinander identifizieren, sondern müssen diese gleichwohl streng auseinanderhalten. Es wäre also gut, wenn man an der alten Bedeutung des Wortes "Wert," so wie es die Klassiker gebraucht haben, festhalten würde. Das schliesst nicht aus, dass man, ebenso wie es die Klassiker auch schon bereits gemacht haben, da, wo kein Missverständnis mit unterlaufen kann, auch das Wort "Preis" ab und zu im gleichen, bzw. in dem damit zusammenhängenden Sinne gebraucht. Eine grundsätzliche Veränderung des Sprachgebrauchs ist aber auf jeden Fall nicht angebracht.

Wir definieren also den "Preis" schlechthin als "Austauschverhältnis eines Gutes gegenüber dem *Gelde*" und den "Wert" als das "*regelmässige* Austauschverhältnis eines Gutes gegenüber den anderen *Gütern*."

2. DIE BEGRIFFE "ANGEBOT" UND "NACHFRAGE"

Ist bei den Begriffen "Wert" und "Preis" in ihrer Auffassung und Verwendung gegenüber früher eine gewisse Unklarheit und Verwirrung entstanden, so hat sich inbezug auf die Auffassung und Verwendung eines anderen Begriffspaares umgekehrt gegenüber früher, insbesondere gegenüber der bei den Klassikern herrschenden, eine Läuterung und Klärung vollzogen. Man fasst heute "Angebot" und "Nachfrage" nicht mehr, wie früher, als blosse einfache Mengen auf, man braucht diese Worte in der Wissenschaft nicht mehr als identisch mit angebotenen und nachgefragten Mengen, sondern man versteht heute darunter wohl allgemein eine *Verbindung* von *zwei* Grössen, eine "*Funktion*" von Menge und "Preis." Aber damit sind diese Begriffe noch keineswegs vollständig geklärt und es können noch immer Verwechslungen unterlaufen und unterlaufen tatsächlich auch.

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* Sehr deutlich kommt diese Unterscheidung zum Ausdruck in der Redewendung: etwas unter seinem "Wert" erstehen und etwas überzahlen, womit gemeint ist: etwas für einen Preis kaufen, der unter dem Wert des Gutes liegt, bzw. unter seinem regelmässigen Preis, und: für etwas einen Preis bezahlen, der höher ist als der regelmässige, den Wert des Gutes ausdrückende Preis.

Vor allem ist nicht klar, was man dabei unter "*Preis*" verstehen soll. Versteht man darunter einen wirklichen Preis, also etwa den gerade in einem bestimmten Zeitpunkt auf einem Markte bestehenden Preis, so ist mit der Inbezugsetzung von Menge und Preis nicht viel gewonnen. Man kann dann die "Nachfrage" auch einfach wieder auffassen als die zu dem gerade bestehenden Preis nachgefragte Menge und das haben die Klassiker auch schon getan. Aber dann kann man offenbar den jeweils wirklich bestehenden Preis nicht aus der "Nachfrage," bzw. aus "Angebot und Nachfrage" erklären. Das war ja eben der Mangel der alten Theorie von Angebot und Nachfrage, dass sie den Preis als durch Angebot und Nachfrage bestimmt auffasste, aber zugleich auch wieder Angebot und Nachfrage als selbst vom "Preis" abhängig betrachtete, bzw. bei ihrer Begriffsbestimmung betrachten musste. Die Theorie bewegte sich insoferne in einem offenbaren Zirkel und konnte im Grunde genommen nie *bestehende* Preise, sondern immer nur Preis*veränderungen* erklären. Sie konnte erklären, warum ein bestehender Preis steigen oder fallen muss oder auch gleichbleiben kann, sie konnte aber nie erklären, warum der bestehende Preis gerade die und die Höhe hat oder der nächste Preis gerade die und die Höhe erhalten wird. Sie konnte überhaupt nicht erklären, dass es so etwas wie stabile Preise und damit einen "Wert" geben könne, denn nichts sprach dafür, dass die Bewegung einmal in Ruhe ausmünden müsse. So hat Adam Smith auch tatsächlich nie von einem gleichbleibenden Preis gesprochen, sondern die wirklichen Preise oder die "*Markt*preise" als tatsächlich ständig in Bewegung befindlich betrachtet. Einen *Ruhe*punkt konnte er sich nur als "*Gravitations*punkt" denken, um den herum die wirklichen Preise beständig schwanken, so wie ein Pendel um seinen Ruhepunkt schwankt.

Nun wäre damit wohl genug gesagt, wenn die Wirklichkeit damit übereinstimmen würde. Aber das ist tatsächlich nicht der Fall. Wir sehen in Wirklichkeit — wenigstens in Zeiten, die wir als "normale" betrachten — keineswegs ein ständiges Auf und Ab der Preise, sondern vielmehr, dass die Preise wenigstens eine starke *Tendenz* zur Stabilität zeigen und oft über einen ziemlich langen Zeitraum hinweg sogar ganz stabil sind. Ja im Grunde genommen baut sich doch die ganze wirtschaftliche Kalkulation auf der Annahme der Stabilität der Preise auf, was nicht sein könnte, wenn die *Bewegung* die *Regel* und die *Stabilität* die *Ausnahme* wäre. Und darauf beruht ja auch, wie wir schon gezeigt haben, die Möglichkeit, dass wir von einem "Wert" sprechen können. Diese Stabilität muss also in erster Linie erklärt werden und nicht die Bewegungen, d.h. es muss erklärt werden, warum *bestehende* und sich in ihrer bestehenden Höhe haltende Preise gerade diese Höhe haben, die sie haben.

Das ist aber bei jener Fassung der Begriffe "Angebot" und "Nachfrage" nicht möglich. Da steckt der "Preis," der zu erklären ist, schon in den Begriffen von "Angebot" und "Nachfrage," bzw. in den so bezeichneten Tatbeständen, aus welchen er zu erklären wäre. Das ist keine Erklärung. Eine Erklärung muss auf etwas zurückführen, was das zu Erklärende nicht selbst noch enthält, sondern vollständig *hinter* dem zu Erklärenden liegt, und ausserdem auf etwas, was von ihm wesensverschieden ist. Beides ist nicht der Fall, wenn man den "Preis" aus "Angebot" und "Nachfrage" erklärt, "Angebot" und "Nachfrage" aber selbst als eine Beziehung zu dem zu erklärenden Preis auffasst. Solange man das tut, kommt man aus dem Zirkel nicht hinaus, der in der klassischen Angebot- und Nachfragetheorie liegt. Wenn man daraus hinauskommen will, so muss man unter "Preis" als in "Angebot" und "Nachfrage" enthaltener Beziehungsgrösse etwas ganz *anderes* verstehn, als man unter "Preis" als dem zu erklärenden Phänomen versteht. Man muss bei jenen Begriffen unter "Preis" etwas verstehn, was völlig *hinter* dem "Preis" als dem zu erklärenden Phänomen liegt und von diesem sowohl *wesensverschieden* als *unabhängig* ist.

Was meinen wir also unter "Preis," wenn wir sagen, dass "Angebot" und "Nachfrage" eine Verbindung zwischen einer Gütermenge einerseits und einem "Preis" andererseits darstellen oder dass wir darunter die "*zu einem bestimmten Preis* angebotene" und die "*zu einem bestimmten Preis* nachgefragte" Menge eines Gutes verstehn? Wir meinen damit offenbar gar nicht einen wirklichen Preis, d.h. eine im Austausch für das Gut wirklich hingegebene Geldsumme, sondern eine bloss *verlangte*, bzw. *angebotene* Geldsumme, oder wir können auch sagen, wir meinen damit eine "*nachgefragte*," bzw. "*angebotene* Geldmenge." Wir verstehn also unter "Angebot" und "Nachfrage" eine Verbindung zwischen einer "angebotenen," bzw. "nachgefragten Gütermenge" einerseits und einer "nachgefragten," bzw. "angebotenen Geldmenge" andererseits, oder, richtiger gesagt, in den Tatbeständen die wir als "Angebot" und "Nachfrage" bezeichnen, bzw. in den Begriffen von "Angebot" und "Nachfrage" ist eine derartige Verbindung eingeschlossen.

Dabei ist wohl zu beachten, dass für die Gütermenge, um die es sich hier handelt, natürlich genau dasselbe gilt, was von der Geldmenge, die hier involviert ist, gesagt wurde; sie darf *auch* nicht betrachtet werden und sie kann nicht definiert werden — was doch ebenfalls vielfach geschieht — als die "Gütermenge, die man bei einem bestimmten Preis *kauft*" oder verkauft; sie ist nicht eine tatsächlich gekaufte und verkaufte, sondern eine blos "*nachgefragte*," bzw. "*angebotene* Gütermenge." Die zu dem bestehenden Preis nachgefragte und angebotene Gütermenge fällt nun allerdings grössenmässig zusammen mit der tatsächlich gekauften und verkauften Gütermenge, aber sie sind deshalb *nicht dieselben Grössen*, d.h. *nicht dieselbe Art* von Grössen, sie sind als Grössen *nicht* miteinander *identisch*, *sondern* nur *einander gleich*, es sind verschiedene "tatsächliche" Grössen, so wie etwa die Fläche des Fussbodens eines Zimmers und die Fläche seiner Decke. Zu "Angebot" und "Nachfrage" gehört ja auch *mehr* als die zwischen *der* dem tatsächlich gegebenen Preis gleichen angebotenen und nachgefragten *Geldmenge* und *der* der tatsächlich verkauften und gekauften Gütermenge gleichen angebotenen und nachgefragten *Gütermenge* bestehende Beziehung, es gehören dazu ja auch *andere* "Preise" — im Sinne von angebotenen und nachgefragten Geldmengen — und die ihnen korrespondierenden nachgefragten und angebotenen Gütermengen.

Wir haben gesagt: die Tatbestände, die wir "Angebot" und "Nachfrage" nennen, bzw. die so bezeichneten Begriffe stellen dar oder involvieren eine Beziehung zwischen zwei Grössen, zwischen einer "angebotenen," bzw. "nachgefragten Gütermenge" und einer "nachgefragten," bzw. "angebotenen Geldmenge." Schenken wir nun unsere Beachtung einen Augenblick nicht mehr den hier involvierten "Mengen," sondern dem, was inbezug auf sie in der Tatsächlichkeit geschieht, so werden wir keine Schwierigkeit mehr haben, jene Begriffe richtig, klar, bestimmt und eindeutig zu definieren. Diese Mengen werden "angeboten," bzw. "nachgefragt." D.h. man ist *bereit*, sie im Tausche hinzugeben, bzw. anzunehmen, sie gegeneinander zu vertauschen. In dieser Bereitschaft oder Bereitwilligkeit liegt das *Tatsächliche*, der reale Sachverhalt, um den es sich bei jenen Tatbeständen handelt. Wir können also die "Nachfrage" definieren als die "Bereitschaft" oder "*Bereitwilligkeit*, eine bestimmte Geldmenge gegen eine bestimmte Gütermenge zu vertauschen," bzw. "eine bestimmte Gütermenge gegen eine bestimmte Geldmenge einzutauschen" oder "eine bestimmte Gütermenge zu einem bestimmten Preis zu kaufen," und das "Angebot" als die "Bereitschaft" oder die "*Bereitwilligkeit*, eine bestimmte Gütermenge gegen eine bestimmte Geldmenge auszutauschen", "für eine bestimmte Geldmenge eine bestimmte Gütermenge hinzugeben", oder "eine bestimmte Gütermenge zu einem bestimmten Preis zu verkaufen." In der Regel wird die "Nachfrage" sein: die Bereitwilligkeit, zu *verschiedenen* bestimmten Preisen *verschiedene* bestimmte Mengen eines Gutes zu kaufen, und das "Angebot" die Bereitwilligkeit, zu *verschiedenen* bestimmten Preisen *verschiedene* bestimmte Mengen eines Gutes zu verkaufen. Das heisst: es handelt sich bei den angebotenen wie nachgefragten Güter- und Geldmengen um *variable* Grössen. Es werden *alternativ* zu kaufen begehrt die Menge m_1 zum Preise p_1 *oder* die Menge m_2 zum Preise p_2 *oder* die Menge m_3 zum Preise p_3 u.s.w. Dabei kann man sowohl die eine wie die andere der beiden Grössen als die unabhängige und die andere wie die eine als die abhängige Variable betrachten. Man kann von den "*Preisen*" ausgehn, zu welchen nachgefragt wird, sie variieren lassen und ihnen die Mengen — als abhängige Variable — zuordnen, die dabei nachgefragt werden, oder man kann von den *Mengen* ausgehn, die man zu kaufen wünschte, und diese variieren lassen und ihnen die "Preise" — als abhängige Variable zuordnen, die man für die verschiedenen Mengen zu zahlen bereit wäre. Praktisch wird bald das eine, bald das andere einen Sinn haben, jenachdem, welche Aufgabe zu lösen ist, und theoretisch wird bald das eine bald das andere zweckmässiger sein je nach der Problemstellung, um die es sich handelt.

Daraus folgt nun offenbar, dass "Angebot" und "Nachfrage" in concreto nicht bestimmt sind, wenn man nur die Mengen nennt, die angeboten, bzw. nachgefragt werden, sondern: man muss *auch* die "*Preise*" nennen, *zu welchen* diese Mengen angeboten, bzw. nachgefragt werden, um ein konkretes Angebot, bzw. eine konkrete Nachfrage bestimmt anzugeben. Das ist insoweit nur mehr selbstverständlich. Aber es ist besonders zu beachten, dass eine *Veränderung* der Nachfrage oder des Angebotes nicht nur vorliegt, wenn sich die nachgefragten, bzw. angebotenen Gütermengen ändern, sondern auch dann, wenn sich der "*Preis*" ändert, zu welchen dieselbe Gütermenge nachgefragt, bzw. angeboten wird, und das heisst, dass eine Veränderung in Nachfrage und Angebot eintreten kann, ohne dass sich die nachgefragte oder angebotene Menge selbst ändert, also auch bei völligem *Gleichbleiben* der nachgefragten, bzw. angebotenen Gütermenge. Es ist nicht dieselbe Nachfrage, wenn 100 Einheiten eines Gutes zum "Preise" 3 nachgefragt werden, als wenn sie zum "Preise"

2 nachgefragt werden, und das Angebot hat sich stark geändert, wenn zwar nach wie vor gerade 100 Einheiten angeboten werden, diese aber, während sie früher zum "Preise" 4 angeboten wurden, nunmehr zum "Preise" 2 oder 8 angeboten werden. Das hat schon Malthus in seinen "Principles" hervorgehoben und er hat dafür die Bezeichnung "Intensität" von Angebot und Nachfrage geprägt. Trotzdem denkt man auch heute noch, wenn man von einer Veränderung von Angebot und Nachfrage spricht, in der Regel nur an eine Veränderung der angebotenen und nachgefragten *Mengen*. Bei der Nachfrage mag das von grösserer Bedeutung sein, beim Angebot aber ist es gerade umgekehrt.

Stellen wir nun zusammenfassend fest: *Erstens*, man muss streng unterscheiden zwischen "Angebot" und "Nachfrage" einerseits und den "angebotenen" und "nachgefragten Mengen" andererseits. Diese sind nur ein Element in "Angebot" und "Nachfrage," die immer eine Beziehung, eine "Funktion" von *zwei* Elementen ausdrücken, "Menge" und "Preis." Die *Begriffe* "Angebot" und "Nachfrage" dürfen nicht als reine *Mengen*begriffe, sondern müssen als *Funktions*begriffe aufgefasst werden. Man muss dann *zweitens* konsequenterweise streng unterscheiden zwischen der "*Variabilität*" der in "Angebot" und "Nachfrage" enthaltenen beiden Elemente und einer wirklichen *Veränderung* von "Angebot" und "Nachfrage." Das sind zwei Dinge, die heute noch, kann man sagen, beinahe regelmässig miteinander verwechselt werden. Wenn der wirkliche Preis oder der "Marktpreis" steigt und es werden dann weniger Güter gekauft, so sagt man — nicht nur in Laienkreisen, sondern auch in wissenschaftlichen Kreisen und in der wissenschaftlichen Literatur — "die Nachfrage ist zurückgegangen." In Wirklichkeit kann dabei die "Nachfrage" vollständig die *gleiche* geblieben sein. Zu dem erhöhten Preis war auch schon *früher* eine geringere Menge nachgefragt. Vielleicht ist die Nachfrage sogar gestiegen, trotzdem jetzt weniger gekauft wird. Früher wäre zu diesem erhöhten Preis vielleicht noch weniger gekauft worden. Ebenso ist es im umgekehrten Fall: wenn der Preis einer Ware sinkt und dann davon mehr gekauft wird, so kann man deshalb nicht sagen, dass die Nachfrage gestiegen ist. Das kann bei vollkommen gleichbleibender Nachfrage der Fall sein, das liegt schon *im Begriff* der Nachfrage. Es handelt sich da um eine Variabilität der nachgefragten Menge mit dem Preis, die schon zum Begriff der Nachfrage gehört, und *nicht* um eine *Veränderung* der Nachfrage. Von einer "*Veränderung*" der Nachfrage kann man nur dann sprechen, wenn entweder *gleiche*

Mengen zu einem verschiedenen Preis nachgefragt werden oder verschiedene Mengen zum *gleichen* Preis nachgefragt werden; dass zu *verschiedenen* Preisen *verschiedene* Mengen und *verschiedene* Mengen zu *verschiedenen* Preisen nachgefragt werden, das gehört schon zum *Begriff* der Nachfrage. Das wird heute bei der Begriffsbestimmung wohl auch in der Regel gesagt, aber nichtsdestoweniger findet man dann im Raisonnement über die Probleme die mit einer Veränderung der Preise Hand in Hand gehende Veränderung der gekauften Mengen als eine "Veränderung der *Nachfrage*" aufgefasst und behandelt. Von einer derartigen Verwechslung zwischen der *Variabilität der nachgefragten Menge* mit variierendem Nachfragepreis und der *Veränderung der Nachfrage* sollte man sich sorgfältig frei halten. Es dürfen weder die gekauften Mengen mit den nachgefragten Mengen, noch die nachgefragten Mengen mit der Nachfrage, noch die Veränderlichkeit der nachgefragten Mengen mit der Veränderung der Nachfrage verwechselt werden. Und dasselbe gilt natürlich bezüglich des Angebots.

Und ebenso dürfen ferner nicht miteinander verwechselt werden die *angebotenen* Mengen und die *vorhandenen*, bzw. auf den Markt gebrachten und schon effektiv zum Verkauf gestellten Mengen, wie die *nachgefragten* Mengen und der "*Bedarf*." "Angeboten" sind nicht nur die bereits fertigen, auf dem Markt sich befindlichen, unmittelbar verkaufsbereiten Güter, sondern auch die noch nicht vorhandenen, aber innerhalb der technischen und wirtschaftlichen Möglichkeiten produzierbaren Güter. Und was speziell das "Angebot" an *Produktionsmitteln* betrifft, so dürfen nicht nur jene Mengen von Bodennutzungen, Kapitalnutzungen und Arbeitsleistungen als "angeboten" betrachtet werden, die zum Verkauf an andere bestimmt sind, sondern es müssen dazu auch diejenigen gerechnet werden, die von den Besitzern des Bodens, des Kapitals und der Arbeitskraft in einem eigenen Produktionsprozess verwendet werden. Diese werden zwar nicht in ihrer ursprünglichen Form angeboten, aber in der Form der Produkte, die mit ihnen erzeugt werden. Sie gehören mit in das Angebot hinein; denn sie bestimmen ihren Preis genau so wie die zum Verkauf gestellten Bodennutzungen, Kapitalnutzungen und Dienst-, bzw. Arbeitsleistungen. "Angeboten" können dann schliesslich auch Mengen sein, die nicht nur nicht gegenwärtig verkaufsbereit vorhanden sind, sondern die auch in der Zukunft vielleicht gar nie vorhanden sein werden, ja gar nicht vorhanden sein können. Es betrifft dies das "spekulative" Angebot. Hinsichtlich der Nachfrage muss dann in gleicher Weise unterschieden werden zwischen dem "Bedarf" und den "nachgefragten

Mengen." Der "Bedarf" ist jene Menge eines Gutes, deren ein Wirtschaftssubjekt bedürfen würde, um seine gesamten Bedürfnisse bis zur vollen Sättigung zu befriedigen. Die nachgefragten Mengen sind in der Regel kleiner als der "Bedarf." Der Bedarf ist die *Maximalmenge*, die überhaupt nachgefragt sein kann, sie ist ein "Element" in der Funktion der nachgefragten Menge.

Schliesslich muss noch unterschieden werden zwischen der *vorgeblichen* Nachfrage und dem *vorgeblichen* Angebot einerseits und der *wirklichen* Nachfrage und dem *wirklichen* Angebot andererseits. "Nachfrage" ist die *wirkliche* Bereitwilligkeit, zu bestimmten Preisen bestimmte Mengen eines Gutes zu kaufen, und "Angebot" ist die *wirkliche* Bereitwilligkeit, zu bestimmten Preisen, bestimmte Mengen eines Gutes zu verkaufen. Aber diese wirklich vorhandene Bereitwilligkeit kommt nicht immer von vornherein zum Ausdruck. Der Käufer kann ein Interesse daran haben, den Verkäufer über seine wirkliche Bereitwilligkeit, zu einem bestimmten Preise eine bestimmte Menge zu kaufen, in Unklarheit zu lassen oder positiv irre zu führen, und desgleichen kann der Verkäufer ein Interesse daran haben, den Käufer über seine Bereitwilligkeit zum Verkauf hinsichtlich Menge, aber vor allem Preis im Unklaren zu lassen oder irre zu führen. Der Käufer gibt daher vor, nur zu einem niedrigeren Preis eine bestimmte Menge kaufen zu wollen, als um welchen er diese Menge zu kaufen wirklich bereit ist, und der Verkäufer nennt einen höheren Preis, zu welchem er eine bestimmte Menge zu verkaufen bereit sei, als der ist, zu welchem er zu verkaufen wirklich bereit ist. In solchen Fällen pflegt man zu sagen: wenn nun das Geschäft auf der vom Käufer oder Verkäufer so proponierten Basis nicht zustande kommt, dann ändert der Verkäufer sein Angebot und der Käufer seine Nachfrage, dann wird der Verkäufer einen niedrigeren Preis verlangen und der Käufer einen höheren Preis bieten. Aber diese vorgebliche Bereitwilligkeit, zu dem und dem Preis zu verkaufen, bzw. zu kaufen, ist nicht das "Angebot" und die "Nachfrage" und der Preis wird nicht durch sie bestimmt — wenigstens nicht jener Preis, der uns in der Theorie interessiert, der den "Wert" ausdrückt, — sondern durch die *wirkliche* Bereitwilligkeit, bestimmte Mengen zu bestimmten Preisen zu verkaufen und zu kaufen. Jene vorgebliche Bereitwilligkeit, wie sie in den Anfangsgeboten und -forderungen zum Ausdruck kommt, kann nichts anderes darstellen als einen Ausgangspunkt für Verhandlungen zur Eruierung des wirklichen Angebots und der wirklichen Nachfrage des anderen Geschäftpartners.

3. DIE ERKLARUNG DER BESTIMMTHEIT DER PREISE DURCH ANGEBOT UND NACHFRAGE

Hat man so klar erkannt, worum es sich bei den Tatbeständen, die man "Angebot" und "Nachfrage" nennt, handelt, und die *Begriffe* "Angebot" und "Nachfrage" demgemäss einwandfrei bestimmt, so bietet es keine besonderen Schwierigkeiten mehr, sie zur Erklärung der Bestimmtheit der Preise zu verwenden. Man muss dann — erstens — nur noch erkennen, dass, wenn man mehrere verschiedene Güter zu kaufen hat, die Menge jedes einzelnen von ihnen, die man zu kaufen begehrt oder "nachfragt," nicht nur von *seinem* "Preis" abhängt, bzw. mit *seinem* "Preis" variiert, sondern zugleich auch von den "Preisen" der anderen Güter abhängt, bzw. mit den "Preisen" der anderen Güter variiert. Dann findet die Nachfrage nach jedem Gut, bzw. die nachgefragte Menge eines jeden ihren Ausdruck in einer (expliziten) Funktion von ebensovielen Grössen als es zu kaufende Güter gibt, in einer Funktion von allen den "Preisen" dieser Güter. Es ist dann die Nachfrage nach allen diesen Gütern einheitlich bestimmt und diese einheitliche Bestimmtheit erhält ihren Ausdruck in einer zusammenhängenden Reihe von Funktionen oder Gleichungen, die alle dieselben unabhängigen Variablen enthalten. Diese Funktionen oder Gleichungen stellen die "Bereitwilligkeit" dar oder drücken die "Bereitwilligkeit" aus, "zu bestimmten Preisen dieser verschiedenen Güter bestimmte Mengen von ihnen zu kaufen." Auf der anderen Seite haben wir Angebotsfunktionen von prinzipiell gleicher Art, die die "Bereitwilligkeit" ausdrücken, "zu bestimmten Preisen derselben Güter bestimmte Mengen von ihnen zu verkaufen." *Zweitens* muss man etwas über die konkrete Gestalt dieser Funktionen aussagen können. Was man darüber in allgemeiner Weise aussagen kann, ist, dass der Wert der einen *zunimmt*, während der der anderen *abnimmt* mit zunehmenden Werten ihrer Variablen. Daraus folgt nun mit mathematischer Notwendigkeit, dass — wenn nicht ganz besondere Umstände gegeben sind, die dies ausschliessen, — bei bestimmten Werten der Variablen die Werte der Angebotsfunktionen gleich sein müssen den Werten der sich auf die gleichen Güter beziehenden Nachfragefunktionen, d.h. nun, dass es bestimmte Preise geben muss, bei denen die nachgefragten Mengen und die angebotenen Mengen von einem jeden Gut einander gleich sind. Damit sind also *gewisse* Preise eindeutig und fest bestimmt.

Aber das ist eine *rein logische* Ableitung aus den Tatbeständen "Angebot" und "Nachfrage," bzw. den diese Tatbestände ausdrükkenden Begriffen von "Angebot" und "Nachfrage" und inbezug auf die wirklichen Preise ist damit an und für sich nichts ausgesagt. Was abgeleitet worden ist aus jenen Begriffen, ist nur, dass es *mathematisch* so bestimmte Grössen geben muss, aber nicht, dass es sie in Wirklichkeit geben muss. Deshalb darf sich die Untersuchung mit diesem (rein logischen oder mathematischen) Resultat nicht begnügen, sondern sie muss die Frage stellen: *wie verhalten sich* nun die *wirklichen* Preise zu diesen so abgeleiteten "*Gleich*gewichtspreisen"?

Diese Frage ist nicht schwer zu beantworten. Die wirklichen Preise sind, soweit es sich um stabile Preise handelt, Gleichgewichtspreise, sie *müssen* als stabile Preise Gleichgewichtspreise sein, denn sonst könnten sie nicht stabil sein. Solange kein Gleichgewicht zwischen Angebot und Nachfrage, d.h. nicht Gleichheit zwischen den angebotenen und nachgefragten Mengen besteht, kann es keinen stabilen Preis geben, muss es zu Preisveränderungen kommen. Eine stabile Preislage setzt jenes Gleichgewicht, bzw. jene Gleichheit voraus. Insoferne können wir also sagen: durch jene Erklärung der Bestimmtheit gewisser Preise sind auch die wirklichen Preise erklärt, soweit es sich um stabile Preise handelt. Die Höhe der nicht stabilen Preise kann damit nicht erklärt werden und kann überhaupt nicht erklärt werden. Inbezug auf sie kann nur die Bewegung, bzw. die Bewegungsrichtung erklärt werden. In Wirklichkeit sind nun aber, wie wir bereits festgestellt haben, — wenigstens in Zeiten, die wir als die "normalen" betrachten — die Preise der meisten Güter stabil oder sie zeigen wenigstens eine starke Tendenz zur Stabilität, sie sind "relativ stabil." Das heisst aber, dass sie eben Gleichgewichtspreise oder wenigstens annähernd Gleichgewichtspreise sind, und so können wir wohl sagen, dass mit der Erklärung der Bestimmtheit der Gleichgewichtspreise auch die Bestimmtheit der *wirklichen* Preise weitaus der meisten Güter erklärt ist. Die nicht stabilen Preise sind natürlich auch in ihrer jeweiligen Höhe bestimmt, aber diese Bestimmtheit ist keine so einfache, als dass sie sich in eine wissenschaftliche Formel bringen liesse. Es spielen dabei viel zu viele und vielfach gänzlich unbekannte und unerfassbare Faktoren mit. Abgesehen davon interessiert sie uns auch nicht. Was uns interessiert, ist nicht das rasch Vorübergehende, sondern das im Wechsel Beharrende. Jenes hat keine oder nur eine ganz untergeordnete Bedeutung für unser Leben. Was uns aber an den nicht stabilen Preisen interessiert, bzw. interessieren kann, ist ihre

Veränderlichkeit als solche oder ihre tatsächliche Veränderung in bestimmter Richtung, falls diese nicht einen rein vorübergehenden, sondern einen einigermassen andauernden Charakter hat. Die Veränderung als solche kann ja auch etwas Andauerndes sein. Dabei interessiert uns aber eben nicht irgendein bestimmter Punkt aus ihrem Verlauf, sondern ihr Verlauf als solcher.

Wir haben früher das Gleichgewicht zwischen Angebot und Nachfrage als gegeben durch die Gleichheit der zum selben Preise angebotenen wie nachgefragten Mengen hingestellt und in der Regel wird der Gleichgewichtszustand durch jene Gleichheit definiert. Dies ist jedoch nicht richtig. Es kann sich, wenn man sagt, dass das Gleichgewicht zwischen Angebot und Nachfrage durch jene Gleichheit charakterisiert sei, nur um eine provisorische Feststellung handeln. In Wirklichkeit kann sehr wohl Gleichgewicht bestehen und trotzdem ein Ueberschuss der angebotenen Mengen über die nachgefragten oder ein Ueberschuss der nachgefragten über die angebotenen Mengen vorhanden sein. In Wirklichkeit gibt es ja oft *unverkaufte* Mengen, also ein "überschüssiges Angebot" auf dem Markte und zwar nicht nur, wenn Monopole bestehen, sondern auch unter Konkurrenzverhältnissen, wobei trotzdem vollständiges Gleichgewicht besteht, d.h. keine Tendenz zu einer Veränderung vorhanden ist, und in Krisenzeiten, bzw. genau gesprochen in Zeiten einer Depression ist das sogar die Regel, ja der Depressionszustand kann direkt durch diesen Zustand charakterisiert oder definiert werden. Es kann nämlich zu einem bestimmten Preise eine grössere Menge angeboten sein als zu diesem Preise nachgefragt ist, jedoch die Sache so liegen, dass zum nächstmöglichen niedrigeren Preis eine Differenz in umgekehrter Richtung vorhanden ist, die noch grösser ist, also die nachgefragte Menge die angebotene Menge um einen grösseren Betrag überschreiten würde. Es kann vielleicht aus produktionstechnischen Gründen einen vollen Ausgleich nicht geben. Das Gleichgewicht zwischen Angebot und Nachfrage ist in solchen Fällen dann gegeben, wenn der Ueberschuss der nachgefragten Menge über die angebotene Menge, bzw. umgekehrt, der kleinstmögliche ist. Auch das kann vielleicht noch nicht als eine endgültige Definition angesehen werden, doch kann hier die Frage infolge Raummangels nicht weiter verfolgt werden. (Ich habe eine etwas andere Definition in meinen "Grundzügen der Volkswohlstandslehre" gegeben.) Es sei nur noch darauf hingewiesen, dass diese Frage praktisch wichtig ist für den Fall, dass die Ausdehnung der Produktion nicht kontinuierlich, sondern nur diskontinuierlich mit plötzlicher starker Steigerung der angebotenen Mengen, wenn auch zu einem niedrigeren Preis, erfolgen kann. Dann wird es geraume Zeit, bevor es zur Ausdehnung kommt, einen dauernden Ueberschuss der nachgefragten gegenüber den angebotenen Mengen und nach der Produktionsausdehnung einen Ueberschuss der angebotenen Mengen über die nachgefragten Mengen geben, während in beiden Zuständen ein völliges Gleichgewicht zwischen Angebot und Nachfrage bestehen kann.

Es sei zum Abschluss dieser Untersuchung noch auf die mehrfache Bedeutung des Ausdrucks "Gleichgewicht" hingewiesen und auch auf ein Problem, das damit zusammenhängt. Auch das Wort "Gleichgewicht" ist nicht von vornherein klar und eindeutig, sondern man muss jedesmal, wenn man es braucht, angeben, was damit gemeint ist, falls dies nicht aus dem Zusammenhang, in dem es gebraucht wird, klar hervorgeht. Wenn wir dort von "Gleichgewicht zwischen Angebot und Nachfrage" gesprochen haben, so ist das wohl insoweit klar, als damit ein Zustand gemeint ist, der die Tendenz einer gewissen Dauer in sich birgt und dadurch eine Bestimmtheit der Preise im Gefolge hat. "Dauer" ist aber etwas Relatives. Man kann von "Dauer" sprechen inbezug auf einen Tag, wie inbezug auf eine Woche oder einen Monat oder ein ganzes Jahr. Nun, in der Theorie können wir so konkret nicht unterscheiden. Wir müssen uns da mit der Unterscheidung von einer "kürzeren" Dauer und einer "längeren" Dauer begnügen und was "kürzere Dauer" und "längere Dauer" für die Wirklichkeit bedeutet, das hängt ganz vom konkreten Fall und vom Problem ab, mit dem man es zu tun hat. Wir werden in unserem Fall und bei unserem Problem unter "kürzerer Dauer" die Dauer eines einheitlichen, in sich geschlossenen Marktes verstehn und unter "längerer Dauer" eine Periode der Aufeinanderfolge, bzw. der Wiederholung von Märkten gleicher Art. Oder wir können auch so sagen: wir verstehen unter "kürzerer Dauer" einen Zeitraum, der kürzer ist, als dass sich eine Ausdehnung der Produktion auf dem Markte bemerkbar machen könnte, und unter "längerer Dauer" einen Zeitraum von einer Länge, bei der die Produktion für die Marktversorgung eine Rolle spielen kann, bzw. noch nicht produzierte, aber produzierbare Gütermengen mit in das Angebot eingehn.

Die Bestimmung der Preise, wie sie durch das Cassel'sche Gleichungssystem erfolgt, ist nun eine Bestimmung lediglich für einen einheitlichen, in sich geschlossenen Markt oder für eine einzige Produktionsperiode und *kann* es *nicht* darüber hinaus, für einen längeren Zeitraum sein.

Die Cassel'schen Gleichungen geben—so können wir auch sagen—nur die Preise für ein momentanes Marktgleichgewicht, nicht aber für einen "statischen" oder Dauerzustand der Volkswirtschaft. In seinen Gleichungen ist nämlich eine Grösse als *gegeben* angenommen, die nur für einen bestimmten Zeitpunkt "gegeben" sein kann, auf die Dauer aber selbst durch den Preisbildungsprozess bestimmt ist, also als eine Unbekannte im Problem betrachtet werden muss. Das ist die *Geldmenge*, über welche die Nachfragenden verfügen und die zusammen mit ihren Bedürfnissen (und, soweit Produktion in Betracht gezogen wird, mit den technischen Koeffizienten) die Grundlage für die Bestimmung der im Tatbestand der Nachfrage involvierten Grössen, Gütermengen und Nachfragepreisen, ist. Man kann nun jedenfalls davon *ausgehen*, indem man sich z.B. vorstellt, dass ein bestimmter Zeitpunkt zum Ausgangspunkt der Betrachtung gemacht wird, in dem die Wirtschaftssubjekte die Konsumgüter, über welche sie verfügten, konsumiert haben und über bestimmte Geldsummen verfügen, mit welchen sie neue kaufen müssen und kaufen wollen. Auf Grund ihrer Bedürfnisse sowie auf Grund der Grösse jener Geldsumme fragen sie bestimmte Mengen der verschiedenen Güter zu bestimmten Preisen nach. Auf Grund des dieser Nachfrage entgegentretenden Angebots sind dann gewisse Gleichgewichtspreise bestimmt, zu welchen alle angebotenen Güter—wir halten uns der Einfachheit halber an diese vereinfachte Vorstellung—abgesetzt werden können, also von den Nachfragenden gekauft werden und zugleich ihre Nachfrage voll befriedigt werden kann. Diese Preise werden die wirklichen Preise sein, wenn diese Gleichgewichtspreise sein sollen. Man kann sich vorstellen, dass sie börsenmässig festgestellt werden oder dass sie dadurch zustande kommen, dass sich die Anbietenden, sowie die Nachfragenden bei den Kaufabschlüssen an frühere Erfahrungen halten oder einfach dadurch, dass die Anbietenden die "richtigen" Preise erraten. Nach Abschluss des Marktes sind alle Nachfragenden, bzw. Käufer—die ja zugleich auch die Anbietenden und die Verkäufer sind—sowohl im Besitz der begehrten Güter, sowie im Besitz bestimmter Geldmengen. Aber es ist nicht gesagt, dass diese Geldmengen dieselben sein müssen, über die sie auch früher beim ersten Start verfügten. Die Gesamtsumme, über die sie alle zusammen verfügen, muss allerdings die gleiche sein, aber ihre Verteilung kann und wird wahrscheinlich eine ganz andere sein. Dann wird eben durch diesen Tauschprozess die ganze Nachfrage verändert sein und auf dem nächsten Markt werden die Gleichgewichtspreise ganz andere sein.

Wollen wir also zur Erklärung eines über mehrere Märkte hinweg stabilen Preissystems kommen, so müssen wir jene Voraussetzung, dass sich die Nachfragenden von vornherein im Besitz ganz bestimmter Geldmengen befinden, auf welchen sich ihre Nachfrage aufbaut, bzw. die Annahme einer von vornherein gegebenen Geldverteilung fallen lassen und diese Geldmengen selbst als unbestimmte, erst durch den Tauschprozess zu bestimmende Grössen auffassen. Dann kann man natürlich nicht mehr mit Gesamtnachfragefunktionen operieren, sondern muss diese in Einzelnachfragefunktionen auflösen, bzw. als eine Summe von Einzelnachfragefunktionen auffassen, und es muss eine besondere Gleichgewichtsbedingung hinzugenommen werden, die ist, dass für jedes einzelne Wirtschaftssubjekt die Geldsumme, die er einnimmt für die von ihm angebotenen und verkauften Güter gleich ist der Geldsumme, die er ausgibt für den Ankauf der von ihm nachgefragten Güter. Das gibt dann eine entsprechende Zahl von neuen Gleichungen, durch die zusammen mit den Angebots- und Nachfragegleichungen wirkliche Dauerpreise bestimmt sind, bei welchen es ein dauerndes Marktgleichgewicht oder ein volkswirtschaftliches Gleichgewicht gibt. Und erst durch diese ist das, was wir in letzter Linie erkennen wollen, nämlich der "*Wert*" der Güter bestimmt.

MONETARY CONTROL AND GENERAL BUSINESS STABILIZATION

JAMES W. ANGELL, *Columbia University, New York*

§ I. INTRODUCTION

IN the limited space at my disposal, it is obviously impossible to develop an extended body of systematic argument. I must therefore beg permission to present, for the most part, only those main propositions and conclusions to which a more detailed analysis has led me.

One matter must be disposed of at the start. In recent years technical progress has been described by many writers as a major source of new unemployment, and hence of large changes in the level of general business activity. I think, however, that the importance of technical progress in causing either widespread new unemployment or business fluctuations has been seriously overemphasized. It is of course true that some unemployment is likely to result for a time from those strictly technical and more general organizational improvements, which reduce the number of workers required per dollar of sales without increasing money costs (assuming a fixed total money volume of sales). Such improvements, to the extent that they are effected without the appearance of "excessive" additional saving and investment* in the enterprises concerned, give rise to what I think should alone be called "technological" unemployment. But despite its seriousness for the individual workers involved, the seriousness of technological unemployment for the economic stability and welfare of the country as a whole has been much exaggerated. When separated from the effects of overinvestment, technological unemployment proper usually does not appear abruptly and on a large scale; and the workers whom it throws out are usually absorbed with fair rapidity—other things equal—into other occupations. Witness the familiar shift of labour in the United States, in the years before the present depression, into the so-called service industries.

The elimination of technological unemployment, therefore, would not eliminate all or even most of the major actual fluctuations in the current money volume and direction of general business activity.

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* Saving and investment are here taken to exclude funds accumulated for making replacements; see a later footnote. "Excesses" are also defined later.

The key to controlling and reducing these fluctuations must be sought, rather, in broader and more fundamental aspects of the economic process itself. For societies which propose to remain on a comparatively individualistic and capitalistic basis, societies in which a large measure of individual liberty of action is to be retained, only two main lines of procedure that require serious attention have been proposed in the United States for damping down or eliminating these fluctuations; a solution through explicit socialization or collectivization may be debarred here by hypothesis.

One line of procedure is embodied in the various proposals for setting up so-called "planned economies." With these proposals I have great sympathy. I think the adoption of almost any one of them would give results better than those yielded by our present forms of business organization. But I doubt if they alone are sufficient. I am not convinced that control of merely the direction and the physical quantity of the output can carry with it an adequate degree of stability in the pricing of this output or of its factors of production; or even that it can be achieved at all, except through a simultaneous control of these latter price phenomena. I also suspect that, at least in the United States, the installation of an explicit planned economy in any large sphere would constitute a greater and more rapid step toward the socialization of economic life than the judges and legislators are as yet prepared to take.

§ 2. CONTROL OF BUSINESS ACTIVITY THROUGH MONETARY REGULATION

There is an alternative line of action, however, which I believe will accomplish a substantial part of the desired results, and yet will permit retention of much of the outward forms of individual liberty and competition in business. This is action through the most generalized instrument we possess, the financial mechanism. I believe that the aggregate money volume of business activity can be controlled through the financial mechanism, within reasonable limits; and, incidentally, that if the aggregate money volume of business activity is stabilized, or at least brought within the confines of a relatively small and fairly constant rate of variation, the most serious aspects of the problem of unemployment will disappear.* It is with this problem of financial control that I shall be concerned here.

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* Strictly technological unemployment would of course still remain. So would seasonal unemployment, except in so far as intelligent economic planning

Under the form of economic organization characteristic of the United States and most of Western Europe to-day, and speaking broadly, I think that large and relatively rapid changes in the current volume of general business activity, aside from seasonal fluctuations, come from only two main sources. One is excessive variations in the quantity of purchasing power which is being currently placed at the disposal of the business community. The other is the process of current new saving and investment. The two factors of change work in the following way.

§ 3. CURRENCY IN SOCIETY HAVING NO NEW SAVING AND INVESTING

First, suppose that in the society there is no new voluntary saving and investing at all. In addition, suppose that the total quantity of money is constant—using the term "money" to cover both cash in circulation and total net bank deposits. Under these conditions, what governs the relation between the (fixed) size of this money stock and the size of the aggregate of national money incomes?

The determining factor is, I think, the circular velocity of the average unit of money itself. This concept of circular velocity is already familiar in economic literature. I shall here define the circular velocity of money as the number of times in a given period, say a year, that the average unit of money completes its circular movement from consumers to producers, and back to consumers. When a unit of money comes into the hands of individual consumers, it constitutes income to them. Since we assume at present that there is no voluntary new saving, the money will soon be spent again on consumers' finished goods and services, and will then gradually work back again from the distributors and producers into the hands of the consumers. The number of times that the average unit of money completes this circular movement in a year is its average annual circular velocity. Now the average annual circular velocity of money, multiplied by the total number of

enabled it to be absorbed. If the total money volume of current business activity were roughly "stabilized," however, those more gradual shifts in the demands of business for labour which occur independently of technical change or seasonal fluctuation, and which are due to changes in the demands for the end products of business, would be taken up either by occupational shifts of labour itself, or by gradual shifts in wage rates and even consequent changes in the character of the technical methods currently in use, thus permitting the employment of a larger or a smaller quantity of labour per unit of output. Serious unemployment, in consequence of these shifts in demands, would then be avoided.

units of money in the national money stock, must evidently be substantially equal to the national sum of the individual money incomes received in a year; that is, must equal the national money income.* Moreover, as just stated, we still assume that there is no new saving. Hence the aggregate national money income must also be substantially equal to the money volume of expenditures on consumers' finished goods and services—that is, must equal the price-times-quantity term for such goods and services.†

Thus when there is no voluntary new saving and investment the size of the national money income, and the money volume of purchases and sales of consumers' goods, are governed by the size of the money stock and the average circular velocity of the money itself. This circular velocity is quite different from the kind of velocity which Professor Fisher and Mr. Snyder have helped to make so familiar, and which may be called the exchange or transactions velocity of money. The average annual *circular* velocity of money in the United States seems to have lain around 1·6 or less, in recent years,‡ as against a figure of 25 to 30 for annual *exchange* velocity.

Now I think it can be shown, though not in the brief space here available, that the circular velocity of money is in turn governed by only some three principal factors, when voluntary new saving and investment are not taking place. One is the duration of the period required to produce and market the average unit of commodities and services; one is the average length of time which elapses between successive payments for successive batches of these goods and services; and one is the relative size of the cash and deposit balances, which individuals currently keep by them.§ The point that is especially

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* If M be net cash and bank deposits, C the average annual circular velocity of money, and NI the annual national money income, then:

$$M \times C = NI$$

This equation is of course correct only under the severe limiting conditions here assumed.

† That is, if P be price and Q quantity for consumers' goods,

$$M \times C = NI = P \times Q$$

The second and third members are equal in a given period, however, only if the reserve balances of cash and bank deposits, which consumers currently keep by them, do not change in the aggregate. Voluntary new saving and investment are here ruled out by hypothesis.

‡ See a later footnote.

§ Let R be the average number of production periods per year (that is, the reciprocal of the average time required to complete the production and sale important here, however, is not the precise composition of, nor the precise relation between, the several determinants. It is the fact that these determinants, which are governed by the current state of the production and distribution techniques, and by the current habits of the people in handling money, themselves presumably change only rather gradually. Moreover, the limited statistical evidence available indicates that their combined resultant, which is the circular velocity of money, also changes only rather gradually.* We therefore reach this important initial conclusion. When there is no new voluntary saving

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of an average unit of consumers' commodities and services, expressed in fractions of a year); let *b* be the size of the aggregate reserve balances of cash and bank deposits which individuals currently keep on hand (true voluntary savings for investment purposes being still assumed not to exist), expressed as a fraction of the national money income per production period; and let *d* be the average number of payment-intervals per production period (that is, the reciprocal of the average time which elapses between successive payments for successive batches of goods and services as they come through the production and distribution process, these lengths of time being expressed in terms of the length of the average production period and weighted for the relative size of the payments themselves). Then if C be the average annual circular velocity of money, the following equation can be set up, though the argument to support it cannot be presented in this brief compass:

$$C = \frac{R}{b + d}$$

A process of very rough estimation suggests these values for the United States, when C is taken as 1·5 (see next note): R at 1·2, b at 0·3, d at 0·5. On an annual basis, b becomes 0·36, d becomes 0·6.

* A rough calculation for the United States can be made from equation (1), above. Data for cash in circulation are given in the *Reports* of the Comptroller of the Currency, for the mid-year call dates. For the national money income I have used Professor W. I. King's estimates, in his *The National Income and Its Purchasing Power* (New York, 1930), but with "imputed" income excluded. Dividing the second set of figures by the first gives the following rough values for the circular velocity of money:

1909	1·76	1914	1·64	1919	1·68	1924	1·54
1910	1·72	1915	1·67	1920	1·64	1925	1·51
1911	1·70	1916	1·64	1921	1·53	1926	1·52
1912	1·70	1917	1·68	1922	1·50	1927	1·51
1913	1·73	1918	1·80	1923	1·58	1928	1·51

This procedure makes no allowance for that part of the national aggregate of individual receipts which is currently "spent" on new saving and investment, but as an offset it also makes no deduction for the quantity of money currently tied up in the aggregate saving and investing process. It will be observed that the figures, after allowance for their marked and persistent downward trend, fluctuate roughly with general business activity; but that the fluctuations are, in relative terms, comparatively small.

and investment, the principal source of fluctuations in the national money income, and hence in the volume of sales of consumers' finished goods and services, is, at least in fairly short periods, changes in the size of the money stock. With new saving and investment debarred by hypothesis, changes in the size of the money stock must thus also be the principal source of fluctuations in the aggregate money volume of current business activity.

The conclusions with respect to monetary policy, to which these propositions lead, are self-evident. Still granting that there is no voluntary new saving and investment, then, in short periods, the goal should be to hold the total net quantity of cash and bank deposits as nearly constant as possible. If this is done, the principal source of large short-period fluctuations in business activity will be removed. In somewhat longer periods, however, the constancy of the net quantity of cash and bank deposits should be modified for estimated enduring changes in the circular velocity of money itself, so that the product of money stock times circular velocity remains substantially constant.* Finally, over periods long enough so that population growth is a factor, the product of money stock times circular velocity should presumably be allowed to vary with population, to prevent substantial changes in average money income per caput.†

It will be observed that the initial objective of monetary policy is thus *not* found to be that stability merely in prices taken alone, which one school of thought has proposed. I think this is no more an adequate objective than stability in the physical quantity of output, already referred to. I doubt if stability in prices can alone insure the real initial desideratum, substantial short-run stability in the total money volume of current business activity, even when no new saving and investment are going on.‡ Moreover, what is perhaps of greater practical importance, the fact that prices are usually not good forecasters of business fluctuations makes their movements a wholly inadequate guide for practical banking policies. The criteria already suggested, on the other hand, which entail causing the total volume of bank credit to change at only a relatively small and stable rate, give the central authorities a simple and (once the system is in operation) a reasonably workable guide for their actions.*

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* This proposition is of course superficially analogous to the familiar conclusions presented by Professor Hayek, but is reached by quite different paths, and rests on the use of a quite different conception of the "velocity" of money. Limitations of space prevent any detailed comparison or criticism.

† Average real income per caput would not be substantially altered, whether the money stock was altered or held constant; but differences as between different income groups, in the rapidity of the adjustment to higher or lower levels of money incomes, would presumably produce certain undesirable and permanent changes in the distribution of the incomes themselves, and of wealth in general. The point is discussed further at the end of section 5, below.

‡ The attempt to stabilize prices would also encounter grave difficulties over time, because of the distorting effects of technical improvements, shifts in relative demands, and the like.

§ 4. EFFECTS OF VOLUNTARY NEW SAVINGS AND INVESTMENTS

Fluctuations in the net available quantity of cash and bank deposits thus constitute one main source of disturbance in the current volume of business activity and employment. The other, which we have hitherto ruled out by assumption, is voluntary new saving and investment. How does this latter type of disturbance operate?

The immediate effects of new saving and investment are of a familiar order. Suppose that at a given time no new saving or investment is going on, and that the total net quantity of cash and bank deposits remains constant. Then suppose that new saving and investment begin to take place in substantial volume. With the total quantity of money held constant, individuals can now save funds only by diminishing their current expenditures on consumers' goods and services. For the time being, the money volume of sales of such goods and services will therefore decline; and in further consequence, the aggregate volume of money incomes currently received by individuals from the production of such goods and services will also decline. In other words, the volume of current business activity in the production of consumers' goods and services will decrease.† It is therefore likely (though not necessary)

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* Though stabilization at something materially above the present levels is presumably desirable in the United States, to secure a more equitable distribution of incomes and of debt and tax burdens.

† The production of consumers' goods and services is taken to include not only the processes of direct fabrication and distribution, but also the manufacture of those replacement parts and the like, which are necessary to maintain the existing levels of physical output and efficiency. Funds accumulated for replacements are by definition excluded from the saving and investing process.

The owner of the plant and equipment may of course elect to spend the current receipts, which should go for replacements, on consumers' goods and services. This "dis-saving" will temporarily increase the demand for and the money volume of sales of the latter type of goods, just as the corresponding original saving diminished them; but the eventual shrinkage in the effective size of the country's productive plant which this dis-saving entails must eventually cause a drop in the physical quantity of the national output, and hence in the national real income—a further ground, incidentally, for excluding that the current volume of employment will also decrease substantially.* When the saved funds are invested, however, this process is in part reversed. The funds pass into the hands of makers of additional production equipment and the like, and are then eventually paid out by the latter, in the form of individual money incomes, to meet the costs of producing this additional equipment. The aggregate volume of individual money incomes is thus increased again, and the total number of workers employed, if it had previously been reduced, may now likewise increase.† Finally, suppose that further new saving ceases. Then when the investment processes already under way have been completed, the aggregate volume of individual money incomes will be restored to the level prevailing before the saving began, as will the money volume of sales of consumers' goods and services. If labour is perfectly mobile, employment will also regain its previous level; but this last result may be retarded, or may not appear at all.‡ In their initial aspects, voluntary new saving thus produces the same aggregate effects as a decrease in the quantity of money or a decline in its circular velocity, while new investment, taken by itself alone, produces the opposite effects.

The process of saving and investment of course has other consequences, however, which appear less rapidly, but which may be even more important. The funds which are saved and invested go chiefly into making net additions to plant and equipment,§ and these additions in turn permit the production of larger physical quantities of consumers' finished goods and services than before. But nothing has happened to increase the size of the aggregate of individual money

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replacement funds from savings. When the sales prices received for the finished product are so low that they will not even cover replacement costs, however, there is no voluntary dis-saving, but simply an outright loss of a corresponding quantity of prior savings.

* The volume of employment can here be maintained only to the extent that the effects of the decrease in the volume of current business activity are absorbed in the form of reduced rates of money income per caput in the enterprises affected.

† Again, however, this increase may not follow, or at least may not be great enough to absorb all the workers previously thrown out of the consumers' goods industries. An unemployed residue of workers may persist for a considerable interval—with the corollary, of course, that those who remain employed are currently receiving rates of pay higher than those which the employers would have to pay if the labour supply were in fact perfectly mobile.

‡ See the preceding footnote, and also an earlier footnote on "dis-saving."

§ Replacements being excluded, by definition, from the saving and investing process.

incomes, or of individual money expenditures on consumers' goods and services, for the total quantity of money is still assumed to be fixed.* Hence, the increased physical output of particular types of consumers' goods, if it actually appears, can be sold only by lowering the prices of these goods, by diverting to them a part of the consumers' incomes previously spent on other types of goods, or by a combination of the two. In each case substantial disturbances in the previously existing state of affairs are likely to result.† In the light of these disturbances, how far should new saving and investment, and therefore the consequent increases in the output of consumers' goods and services, be allowed to go?

§ 5. CONDITIONS JUSTIFYING NEW SAVING AND INVESTMENT

There appear to be only four or five main types of situation which can, as it were, really "justify" voluntary new saving and investment. The justification and the limits can be seen most clearly by assuming for the moment that the stock of money remains constant. One such situation arises when the new saving and investment will make it possible to adopt a technical or other improvement that will lower the money cost of producing existing types of articles.* Under non-competitive conditions the benefit of such improvements may be entirely absorbed in profits; but under competitive conditions physical output will usually increase. The volume of new saving and investment must therefore be so gauged that the resulting increase in output is not greater than is warranted by the attainable decrease in costs;† otherwise overproduction, a chronic state of excess plant capacity and loss must ensue. A second type of situation arises from a decrease in the relative money price which a particular group of individuals, among those engaged in a given production process, currently places upon their production efforts or sacrifices—as a decline in the demand rates of wages, or of interest, or the like. Such a differential decline may warrant a change in existing production techniques, or the introduction of new improvements.‡ The saving and investing of new funds to accomplish such changes is "justified," however, only up to the point necessary to secure the full benefit of the changes, after allowance for the possible effect on quantity of output. Saving beyond these limits must again lead to overproduction and loss. A third type of situation arises when cheap new sources of raw materials are discovered; to this the same argument applies. A fourth type appears when it is desired to develop a new variety of products. Here it is in practice probably impossible to set up accurate working limits, but the same principles as those already outlined are relevant.*

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* The process of saving and investing itself, with a fixed total quantity of money, in the main simply diverts part of the current flow of purchasing power and productive effort from consumers' goods to the processes making net additions to plant and equipment, and then back again. It is true that the subsequent operation of the additional plant may itself alter somewhat the circular velocity of money through the production processes concerned. But the effect of this on the average circular velocity of money for the country as a whole, and hence on the aggregate of individual money incomes, will usually be negligibly small. Independent changes in circular velocity, as from a change in consumers' reserve balances, can be ignored for the purposes of the present very general exposition.

† Mr. Keynes, in his *Treatise on Money*, places his chief stress on the (essentially short-run) disturbances produced by the mere *inequality* between current saving and current investment. These disturbances are of course material. I think, however, that the effects of substantial changes in the absolute volume of new saving and investment taken together, regardless of the degree of current equality between them, are even more significant in the short-run period; and that over time, the effects produced by a permanent increase in the physical quantity of output of consumers' goods and services are usually much more important than either type of short-run effect. It is these longer-run effects, for example, which at bottom are chiefly responsible for the present acutely depressed state of business in the United States. To the last two sets of considerations Mr. Keynes pays little direct attention. The operation of the forces here involved can be seen with especial clarity when the quantity of money, for purposes of analysis, is assumed constant.

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* Including improvements in distribution, as well as those in fabrication proper. The cost of producing with the new method should evidently include, under an adequate system of social accounting, the cost (properly distributed over time) of unamortized savings still tied up in such old plant as the new method may make it necessary to scrap. In practice, of course, part of the new plant will usually be built with funds already accumulated to replace the old plant.

† When demand is of unitary elasticity, the maximum increase in output must of course be not more than proportional to the decrease in costs. When demand is of more than unitary elasticity, the total money outlays by consumers on the article will increase, at the expense of their purchases of other types of products, and part of the equipment hitherto used in producing these last will now become useless. To be "justified," from the point of view of the pecuniary accounts of society as a whole, the original improvement must hence permit a lowering of costs great enough to offset (when distributed over time) the losses of prior unamortized savings incurred by scrapping this latter equipment. There may be non-pecuniary reasons, however, for regarding such a shift in the direction of individual outlays as desirable. When demand is of less than unitary elasticity, finally, substantially the opposite considerations apply.

If the producer's position contains elements of monopoly, he may of course elect to absorb all the financial gains from the improvement himself, leaving prices to consumers and physical quantity of output unchanged. In the latter event the problems just outlined do not arise, if the producer acts rationally.

‡ If the demand prices (in money) of all the factors of production decline equally and simultaneously, however, no change in existing production methods will be in order. The effect will be simply to lower the national money income. With a fixed total quantity of money, this decline would be effected through a decline in the circular velocity of money—presumably in consequence of an increase in the reserve cash and deposit balances of individuals.

Finally, new saving and investment should be allowed to take place in quantities that will permit the society's plant and equipment to increase substantially with the growth of its population. When once the existing techniques of production have been put into full use, with reference to the current relative prices of the various factors of production, further saving and investment cannot in themselves materially *increase* average real incomes per caput.† But an appropriate volume of new saving and investment will prevent average real incomes per caput from *falling* as population grows, except in so far as general conditions of increasing costs are imposed by other factors. New saving and investment in quantities determined, with a given state of technique, by population growth, are therefore also "justified," though again saving in excess of the limits thus suggested can only lead to overproduction, chronic excess plant capacity, and loss.

§ 6. DISTURBANCES CAUSED BY EXCESSIVE NEW SAVING AND INVESTMENT

The disturbances that are caused by a volume of new saving and investment in excess of the limits defined above are enduring and far-reaching. Excesses of this sort lead necessarily to overproduction, cut-throat competition, and severe losses to investors. If widespread, they also commonly lead, first to general over-expansion, and then to serious, more or less protracted declines in the current volume of general business activity, and hence in the volume of employment, and to all the other tragic, wasteful consequences which follow thereon. Once such excesses have taken place on a substantial scale, however, little can be done to moderate the painful readjustments and losses which must eventually ensue. The only sure cure is prior prevention. It is therefore simply not true, at least in modern societies, that unlimited saving by the society as a whole is a virtue. Whatever its moral benefits to the individual, the process of saving and investment is economically beneficial only within the limits already indicated. Beyond those limits, further saving and investment must produce serious individual and social loss.*

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* The new product should be able to sell at a price which will not only cover its own costs of production proper, but which will also cover the costs (distributed over time) of the unamortized savings invested in plants making other types of product, in so far as the new product diverts demand from them. If this condition is not met, the saving which ends in the production of the new article will impose a loss on society in other directions, though there may be non-pecuniary reasons for desiring to promote the new type of production.

† Except under the conditions already outlined. In so far as conditions of decreasing costs prevail independently of further technical improvements requiring additional saving and investment to put them in operation, however, real incomes *can* increase without this additional saving and investment.

The evil consequences of excessive saving and investment can seemingly be evaded, it is true, if the new investment is financed directly or indirectly through the creation of additional media of exchange, especially through bank loans. The additional money produces the illusion that the new investment is being secured painlessly, since the prior contraction of consumers' money outlays on consumers' goods, which voluntary new saving entails when the supply of money is invariable, is here unnecessary. On the contrary, the disbursements made to pay for the new equipment, in which the new investment is embodied, actually increase both the money and the real volume of consumers' total current outlays. They thus also provide the added purchasing power necessary to carry off without price reductions, at least for a time, that additional output of consumers' goods and services which is the final product of the new investment. This rising spiral of expansion can evidently continue for a substantial period, and with a misleading appearance of stability, provided the creation of new money, the volume of new investment, the direction of consumers' outlays, and the character of the aggregate physical output, are all roughly in balance.* But eventually, at any one of a number of places, a break must come in the spiral. Dwindling gold reserves, unwillingness of the banks to absorb more securities, failure of consumer outlays to harmonize with the directions and quantities of current output—any one of these factors or others may stop the expansion. Then comes the smash; and the higher the flight before, the harder the fall now. The present business situation in the United States is a precise illustration. I think the post-war American financing of excessive investment through the creation of additional bank credit—and that meant primarily the financing of excessive industrial expansion with bank credit—has been the principal cause of the present acute American depression.

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* It should be understood that keeping the volume of new saving and investment within these limits does not debar continuous technical and material progress; it will merely prevent wasteful saving and investment, and thus prevent loss to the society. As existing plant and equipment wear out, new equipment embodying technical improvements can be steadily substituted, the improved equipment being bought with the funds accumulated to replace the old. Here no new saving and investment at all are required, unless to the extent that the new equipment costs more per unit of output than the old. Meanwhile technical practice improves, physical output increases as costs fall, and the real national income rises, although the money volume of sales of finished consumers' goods and the national money income remain constant.

§ 7. CAN CURRENCY AND NEW SAVING AND INVESTMENT BE CONTROLLED?

The two main sources of large (short-run and middle-period) fluctuations in general business activity are thus, on the view here presented, fluctuations in the net available quantity of cash and bank deposits, and excessive volumes of new saving and investment. To these two sources, I think, all others are subordinate. Under our present general form of economic and political organization, can they be controlled? With respect to the first source, an affirmative answer can be given; with respect to the second, an answer which is at least not negative.

In the United States, under ordinary conditions, the principal source of variations in the aggregate supply of media of exchange is of course bank deposits. To keep the volume of bank deposits at substantially the levels indicated in earlier paragraphs, it is principally necessary only to control the aggregate size of the Federal Reserve member banks' reserve balances* in ways already familiar. By refusing to rediscount, at one extreme, and by heavy open market purchases at the other, the Reserve Banks can, if they choose, come reasonably close to controlling the size of their members' reserve balances.† Through this control of reserve balances, aggregate bank deposits can be made to move in substantially the narrow paths already outlined. Apart from the effects of new saving and investment, a reasonable degree of stability will then follow in the aggregate volume of general business activity.‡

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* Under these conditions, who does the "saving" which the new investment embodies? To take the extreme case, suppose that all the new investment is originally financed, directly or indirectly, through new bank loans, with no prior voluntary saving by individuals or groups from current income; and suppose also that prices remain substantially constant. This process can continue for some time, as long as the general balance referred to in the text is approximately maintained. While it continues, there is no true *present* saving at all. The new investment is achieved solely by mortgaging the future. But when trouble begins to develop, and the banks begin to contract, the postponed burden of making new saving impinges with sudden and often disastrous force. It falls initially on the borrowers, and in so far as they become insolvent, on the lenders—who loaned that which they did not have, and must now save it. Evidently much of this new saving is likely to entail paying for horses already deceased.

To keep new saving and investment within anything like the limits suggested above is a far more difficult task. Even were adequate information available for determining the limits themselves,§ adequate tools for control are lacking. This must always be so, I think, as long as we retain any vestige of individual economy, of private property and individual liberty of action. But the central banking authorities can do a good deal to help guide the course of events. They can control the current volume of new saving and investment to some extent by manipulating their discount rates.* In addition, what is far more important, by their control over the total volume of bank deposits they can completely control that pernicious operation, the financing of excessive investment through the creation of additional bank credit. It is from this last source that the worst evils flow, and probably the most seriously damaging fluctuations in general business activity and employment. The only sure cure is prevention.

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* With allowance, however, for shifts of deposits from one class of deposits to another, and from one reserve-ratio class of banks to another. The effectiveness of this control would of course be increased, if our laws and Constitution were so changed as to make Federal Reserve membership mandatory for all commercial banks—though the dominance of the Reserve system makes this step not essential. Federal incorporation would probably also be entailed, and should then be required of all other types of bank as well.

† With the exception that protracted large gold inflows may exhaust the Reserve Banks' ammunition for offsetting open market sales. Under such conditions the Treasury might be well advised to borrow from the Reserve Banks, even though it did not need the funds, giving in return documents which the Reserve Banks could sell in the open market. Or the Reserve Banks could be empowered to create and sell their own paper for the purpose. In either case the cost would be far less than the real gain to the country from monetary and banking stability.

In times of general business depression such as the present, the central institution may of course be entirely powerless to bring about an expansion of the member banks' own deposits; its efforts may merely, as now, serve to increase their surplus reserves. The solution for such a situation must be prevention rather than cure—prevention, that is, of that past over-expansion of deposits which is nearly always the cause of a present over-contraction.

‡ Of course, shifts of demand from one type of product to another, and consequent shifts between industries in the volume of sales and of employment, with temporary losses, are unavoidable. The most that can be done is to secure approximate stability, with the modifications indicated elsewhere, in the national aggregates.

§ In the absence of better data, the estimated long-run trend of economic growth—say 3 to 4 % compounded annually, for most western countries—can be used as a preliminary guide for establishing the maximum desirable volume of new saving and investment. It would then remain to determine, however, how large a volume of new saving and investment was currently necessary to maintain this rate of growth. Over time, there would also be danger of circularity in the procedure.

The practical conclusions to which the foregoing analysis leads are thus fairly simple. First, the principal sources of serious instability in general business, apart from seasonal fluctuations, are excessive variations in the volume of bank credit, and excessive volumes of current new saving and investment. Of these two sources of disturbance, the first is far more important, since the most serious consequences of excessive saving and investment appear only when the excessive investment is initially financed in significant degree through the creation of additional money. Second, in countries where central bank action is or can be made reasonably effective, the central bank can substantially stabilize the volume of bank credit by using tools already familiar, allowing it to vary only in the ways previously outlined. Excessive contraction of the supply of bank credit cannot be rectified by central bank action alone, it is true, but over-contraction can be largely prevented through the prevention of prior over-expansion. Third, excessive saving and investment can be greatly reduced through central bank action, though not entirely eliminated; and their most serious consequences can be avoided simply by controlling the quantity of bank credit.

I thus believe that proper manipulation of the monetary and financial mechanism can be made to produce a reasonable degree of stability in general business conditions; and indeed that, with the general social and legal philosophy now characteristic of countries such as the United States, enduring stability can be secured only through such manipulation.* Much patient and courageous work is still needed, but the economic institutions and relations involved are after all man-made things, and can be very largely controlled by man. Instead of being left in the main to accident and chaos, as we now leave them, they should be operated with carefully selected long-range objectives in view. It seems certain that they can then be made to yield a far larger total of human welfare and happiness than we now obtain from them.

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* Control over the total quantity of bank deposits will prevent low discount rates from leading to inflation of current business activity.

So far as concerns the short-run contraction in the supply of money currently available for expenditure on consumers' goods, which an increased volume of voluntary new saving entails, an omnipotent monetary authority would largely offset these effects by expanding the supply of money when current new saving exceeds current new investment, and conversely.

It should be noted that the correction of too *small* a volume of current new saving and investment does not seem to be as serious or at least as frequent a practical problem; it usually arises only in consequence of a prior excess.

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* I do not mean by this to deprecate the merits of intelligent systems of planning applied to the directions and physical quantities of output, but only to question the breadth of range, and therefore the effectiveness, of the joint planning which such laws as those now in force in the United States will permit. In a society where law and the prevailing social and economic philosophy makes deliberate control easier than it now is in the United States, this type of planning and the monetary measures outlined above would presumably go hand-in-hand.

SOME REFLECTIONS ON THE THEORY OF FOREIGN EXCHANGE

SVEN BRISMAN, *University of Stockholm*

ONE of the greatest advances in recent years in the monetary theory is the abolishment of the conception "general price level," or, more briefly, "price level" or "price system," as it also used to be called. At the present time we find it difficult to understand how science could so long operate with a conception of this kind, as it is purely formal and has no correspondence in real life. If anything like a general price level really existed, a special theory of the value of money would be superfluous. It is only because there are several kinds of price levels, each affected differently by a change in economic life, that such a theory is needed.

Now we have at least reached a point where, in certain cases, two different price levels are used, viz. those of wholesale prices and cost of living. The wholesale price index is usually taken to express the changes in the value of money. But all existing wholesale price indices are useless for exact analyses, being but miscellaneous agglomerates, and serving no definite purpose. Cost of living indices are by far the better indicators of the purchasing power of money, but they too are insufficiently differentiated.

In the theory of foreign exchange we need above all to conceive of two new price levels, viz. one for foreign trade commodities, and one for effective costs of production. If need be, certain wholesale price indices might be made use of instead of the first, but we must bear in mind that even the best of these indices include quotations for commodities that are not priced in the world market. This applies at all events to the vast majority of wholesale price indices.

As regards costs of production the position is worse still. No costs of production index exists, and would, moreover, probably be impossible to compute, as it would be necessary in determining any changes to take into consideration not only wages and interest, but also changes in productivity, and these cannot be estimated numerically. For short periods involving no great changes of productivity a weighted index of wages and interest might suffice. The rent is generally so small that it need not be considered as a factor of cost in international competition. In respect of long periods, however, we must content ourselves with estimating the costs of production; we can always form an approximate idea of them as expressed in the ability of different countries to compete in the world market. Occasionally the cost of living index is also used, but it is unsatisfactory for this purpose and has only an indirect influence on the rate of exchange.

1. There can be no question of dealing here with the whole exchange problem. It will be sufficient to discuss the most simple instance, viz. when an inflation occurs in one gold standard country, while all the price levels in other gold countries remain practically constant. This is generally expressed by saying that the "price level" in that country rises. Its products would then become dearer than in the world market, with consequent increase of imports, decrease of exports, and lack of foreign exchange.

But by the Law of Indifference this is impossible because, apart from temporary disturbances, there can only be one price in the world market for a certain commodity. Foreign trade commodities cannot rise in price as long as the gold standard is adhered to. Taking Sweden as an instance, we cannot charge more for our goods than other countries do, nor do we pay more for our imports than their price in the world market. What actually happens is probably:

(*a*) The inflation increases our purchasing power. This leads to a direct increase of imports and reduction of exports.

(*b*) The boom caused by the inflation raises the costs of production. Wages, which are by far the largest item, rise without any corresponding increase of productivity. We therefore become less able to compete with other countries. The higher wages also lead to increased cost of living, which again assists in keeping the wages up.

2. We will consider this last point a moment. It is commonly said to be a universal law that inflation will raise wages more slowly than the "price level." But this does not by any means always apply. In the case discussed here, where the inflation comes from *within*, there is every reason to suppose that wages will rise *more* than the price level, whatever meaning we give to that conception. This will be most obvious if we compare the wage level with the price level of foreign trade commodities. The latter will remain unchanged while the wage level rises. The same sort of thing applies to the cost of living too, however. Its rise is in the main a *consequence of* the rise of wages, and many items of foreign trade are included in it.

Apart from the hypothetical instance of an isolated country, the current idea of the Lag of Wages is tenable only when the rise in prices comes from *without*. From the point of view of one particular country adhering to the gold standard, this will happen when the international gold price level rises. And under normal conditions that is the only time when it does happen.

Usually, the above distinction is of slight practical significance. But with a free currency the matter is different. An internal inflation is then not an unusual first cause. The foreign rates of exchange will then rise owing to the increased purchasing power caused by the inflation, and the prices of foreign trade commodities will follow suit. But simultaneously and independently of this, wages will rise because of the inflation. If, on the other hand, a rise in the rates of exchange is the first cause, the prices of foreign trade commodities will go up first, and the rise of wages will follow as a sequel to this. In view of the inertia of wages it cannot be said for certain that in the first case (internal inflation) wages will rise more rapidly than the prices of foreign trade commodities. But it is quite certain that wages will then be affected far more strongly and quickly than when the rise comes via the rates of exchange. At the time immediately following the currency crisis of 1931 a lively discussion took place in Sweden on the question whether the advance in prices desired by most political economists should be achieved by means of a discount and credit policy, or by directly affecting the rates of exchange. What was wanted was higher commodity prices without any appreciable change in cost of living and wages. Certain economists then overlooked the fact that this could only be achieved by a primary rise of the rates of exchange and not, or rather not to the same extent, by a primary internal inflation.

3. The above parenthetical argument is perhaps rather long, but it may serve to throw light on the importance of clearly discriminating between different kinds of price levels.

We will now resume the general argument. This had been brought to the point that an internal inflation had, without changing the prices of foreign trade commodities, disturbed the balance of trade so much that the gold standard had had to be abandoned.

4. Subsequent events are often presented in the same way as the origin of paper currency. Inflation is supposed to cause a continued rise in the price of home products, thus making these less able to compete in the world market. The above objections against this view can be advanced. The costs of production will rise in consequence of

the inflation, to some extent the cost of living too, but foreign trade commodities cannot rise more than the rates of exchange permit. It is thus not the rise of the "price level" that makes the rates of exchange go up. This is due to other causes, and the rise of the "price level" will then be a consequence of the rise in the rates of exchange, not the cause of it.

5. Let us now suppose that the inflation stops. That would bring us to the decisive question of a state of equilibrium between Sweden and the gold countries, or, in other words, to the conception "price parity" or "parity of purchasing power." That theory originated and was first developed in Sweden, where it was already fairly well known before the devaluation of Swedish currency in 1777, i.e. before it was explained by the Bullion Committee in a more scientific manner. In its simplest form it says that equilibrium obtains when the rates of exchange and the price level vary in the same ratio. If prices were doubled, the rate of exchange would also be doubled, and so on. If not, there is under- or over-valuation, always provided that the gold price level remains constant. If this changes, the equilibrium of the currencies must adjust itself accordingly. It is always determined by the relation between the gold price level and the home price level.

For three reasons, however, this argument is untenable.

(*a*) Tariffs and trade barriers may change the equilibrium. The price level in a country with a free currency may quite possibly be doubled, and equilibrium nevertheless obtain at unchanged rates of exchange, etc. During the war we saw some striking examples of this.

(*b*) The classical explanation is as follows. The price level in a country has risen to double the gold price level. The rates of exchange are also doubled, and there is thus equilibrium. Assume now that the gold price level begins to rise. In the country with paper currency the foreign rates of exchange will then drop; if the gold price level doubled, the exchanges in the country with paper currency would return to par.

Experience since the 1920 crisis has proved, however, that this is not always, perhaps not even generally, the case. Changes in the international price level may just as likely affect the price level in the country with paper currency *directly*, making it rise or fall at the same rate while the rates of exchange remain unchanged.

(*c*) What is decisive, however, is that the relation between the "price levels" cannot be made a basis for determining a state of equilibrium. As far as foreign trade commodities are concerned this is obvious, as the rates of exchange are included in their prices. This also applies, generally speaking, to the ordinary wholesale price indices, though with the difference due to the fact that they so to speak are neither flesh nor fish. Cost of living indices are slightly better, but apart from being largely made up of foreign trade commodities there is also another reason why they cannot be used.

Obviously, the condition for equilibrium must be that the paper currency country is competing with other countries on level terms. If its ability to compete is diminished, the rates of exchange will rise, and vice versa. But the cost of living level says nothing about ability to compete. If it rises, this may be due to increased productivity, and the ability to compete will then be unchanged. The "price level" is thus worthless as a standard of comparison, and the expressions "price parity" and "parity of purchasing power" are therefore unsuitable.

We thus come to the conclusion that equilibrium consists in balance between the rates of exchange on the one hand and the international competitive power of the paper currency country on the other. The latter is determined by the effective costs of production in the paper currency country compared with the same costs of production in the gold standard countries, the mutual competitive power of which equilibrate. If we abbreviate the expression for the costs of production in the paper currency country to *Icp* (internal costs of production), and the costs of production of the world market to *Gcp* (gold costs of production), and call the rate of exchange for the gold currencies in the paper currency country *Re*, equilibrium will obtain when

$$Re = \frac{Icp}{Gcp}.$$

The formula for undervaluation will be:

$$Re > \frac{Icp}{Gcp};$$

and for overvaluation:

$$Re < \frac{Icp}{Gcp}.$$

For reasons given above, however, the effective costs of production cannot be determined statistically. We must consequently give up any idea of a numerical expression for the state of equilibrium. Such an expression might possibly be formulated for a restricted comparison between a couple of countries during a short period, but for general application it is impossible. We must therefore content ourselves with probabilities.

A categorical form has, for the sake of brevity, been given to the above reflections. Actually, they are hypotheses, and rather uncertain ones at that. They have been outlined here from a conviction that these questions must be raised for renewed discussion in the light of experiences since the beginning of the crisis in 1920.

THE PROPOSAL FOR A COMPOSITE COMMODITY CURRENCY

J. M. CLARK, *Columbia University*, *New York*

I. FOREWORD

THE part played by the recent great fall in price levels in deepening and prolonging the present world depression has lent added interest to plans for stabilizing prices. One of these plans probably deserves more study than professional economists have been inclined to give it, namely, the plan for replacing a currency based on a given weight of one metal by one based on given physical quantities of a composite list of commodities basic to industry. The present paper is an examination of this plan, with reference to its adoption by the United States of America, though the international aspects of the proposal cannot be wholly ignored.

The plan is advocated, partly as a means of stabilizing price levels, and partly as a direct antidote to the evil effects of overproduction through the additional market it is expected to afford for basic commodities. Some advocates also consider that it would afford a more direct and less wasteful system of distribution for these products. With regard to these claims, the present paper reaches the following conclusions: (1) The plan could be operated so as to produce some degree of price stabilization, but would be less exact and more cumbersome and expensive than, for instance, some plan built on the principle advocated by Irving Fisher. (2) It would have certain effects on the demand for the commodities used as money in various stages of the business cycle, but whether these effects would make for useful stabilization or not is difficult or impossible to predict. (3) The idea that it would furnish an unlimited demand serving as a guarantee against the ills of overproduction is not to be taken seriously by economists. (4) The idea that the plan would simplify the machinery of distribution is also without foundation. (5) A further conclusion is that the plan would complicate the international exchanges even, if adopted universally.

2. ESSENTIAL CHARACTER OF THE PLAN

The central features of the plan are as follows. There is to be made up a list of durable staple commodities, such as iron, copper, silver, oil, coal, cotton, and the like. The dollar would then consist of a composite bundle containing a certain quantity of each in a proportion based upon its economic importance. One suggested basis is the amount of each commodity consumed in the past five years, but this raises some difficulties in such cases as cotton and rubber.

The government would establish the equivalent of free coinage of these composite commodity units into dollar certificates, in essence as it now does with gold. The fixing of prices for particular commodities is no part of the plan. Dealers would bid for the single commodities in open markets, as their own self-interest might dictate, and would offer composite bundles of them to the government in exchange for dollar certificates, or offer dollar certificates to be redeemed in composite bundles of commodities which they would sell, according as their self-interest might dictate.

So far as single commodities are concerned, the government is not obligated to take any particular quantity of any commodity, nor at any particular price. If it takes more cotton, it must at the same time take more coal, more iron, more silver—in short, more of every commodity in the list. A surplus of one commodity in any given year, beyond its customary quota, would have no effect on the relative amount of that commodity which the government would take in that year, though if it persisted it would presumably cause an ultimate revision of the quotas.

There would, in setting up this plan, necessarily be an initial period in which the new money was being substituted for the old to an amount sufficient to carry on the nation's trade, and the corresponding commodity reserves were being accumulated in the government's hands. This could not be done instantly, as the quantities involved would be so large. As we shall see, they would probably amount to something like a full year's output of most of the goods in question. The government's gold, also, could hardly be disposed of instantly. If it were done at all quickly, the government or the holders of gold-standard currency would have to take a heavy loss in terms of commodity value, while the world price level in terms of gold would be revolutionized upward. Assuming these problems to be met, there would follow the period of normal operation of the plan. Its permanent effects must be judged by the conditions existing in this normal operating period.

This, then, is the plan we are considering.

In order to understand this plan and judge its results it is necessary to know something of the nature and volume of the commodities which would be involved. It requires little study to show that practical difficulties would prevent the list of currency-eligible commodities from being a comprehensive one, with the result that the stabilization of the average price level of this list would be far from the same thing as stabilization of commodities in general, or even of basic materials in general.

No other important commodity is as durable as gold: all or most of the principal ones would have to be disposed of and replaced at varying intervals in order to avoid undue deterioration. This would not be an insuperable obstacle to the use of the plan, but it would increase the cost of it; and many commodities would be debarred because the cost and deterioration would be prohibitive. Others would be debarred for lack of standardizable quality. Commodities which are wholly or mainly imported are hardly suitable, since their inclusion would do nothing directly to stimulate or stabilize domestic production. This last consideration would rule out rubber, even if it were eligible on grounds of durability.

Cotton could perhaps be included, and probably wool, but not hay, vegetables, or fruits. Wheat and corn could only be included at heavy cost in deterioration and lack of certainty as to the precise quality one would receive in exchange for a dollar. In fact, farmers in general, constituting one of the largest classes of industries suffering from overproduction, would receive comparatively little from the plan, either by way of direct benefit through a government market for their produce or indirect benefit through inclusion of this produce in the list of commodities whose average price level is to be stabilized.

As for coal, most of the coal mined is bituminous, and is too perishable and too variable in quality to be successfully included, even if the government should turn over its whole supply every year, by simultaneously buying and selling in the open market and taking whatever loss resulted from the deterioration due to a year's storage. Even with anthracite there would be a loss of this character to be borne. And the inclusion of anthracite would be of little aid to miners of bituminous coal, where the acute distress exists at present and where the permanent difficulties of stabilization are to be found. From the standpoint of valorization, the plan includes cotton, which needs it, but would be forced to leave out other products which need it just as much; it would be forced to leave out bituminous coal, which needs it, while including anthracite, which does not.

A session with the Statistical Abstract is enlightening, even without the extensive research which would be necessary to resolve all doubts as to the eligibility of the various commodities. Those clearly eligible include, roughly in order of importance, metallic mineral products, crude petroleum, cotton, sugar, selected chemicals, anthracite coal, and wool.

Other commodities which might possibly be included are: a few types of particularly durable lumber, turpentine and rosin, and some of the non-metallic minerals not already included under the "chemicals" group, though the large group consisting of cement, brick, stone, sand, clay, and glass would not be very desirable for this type of use. In all, a liberal estimate of available commodities might include a normal annual flow of production or consumption amounting to not more than seven billion dollars, at pre-depression values. The list would be dominated by oil, iron, cotton, sugar, anthracite coal, and possibly the chemicals group, amounting between them to over five billion dollars annually.

In other countries than the United States, the corresponding lists would be different, both as to the proportions of different groups of goods, and as to the particular grades or varieties included in each group. An international standard of this composite-commodity type is not possible.

With the goods in this list we are to replace our currency, amounting to between eight and nine billion dollars, or nearly six billions if Federal Reserve notes and bank-notes are excluded, and allowed to remain as at present. This seems the most practicable course, and the following argument will assume that it is followed. The amount of commodities needed might be reduced if they were used as gold now is and made the basis of credit currency instead of certificates; that is, if the commodity reserves were smaller than the number of certificates issued. The government would be strongly tempted to follow this course when it came to redeeming the present credit currency, to avoid the necessity of paying out some hundreds of millions it does not possess. We may conclude, then, that to replace the existing volume of currency would require something less than a normal year's production of the eligible commodities, and much less in the single case of cotton, of which production is much larger than consumption.

3. PERMANENT OPERATION OF THE PLAN

Would this plan stabilize the price level? The present writer will concede that it would stabilize the average price level of the currency-eligible commodities; but this list is so limited that this would be very far from general price stabilization, as already pointed out. Prices of other commodities in general would probably change less than they do now, and to that extent the plan would work in the direction of general stabilization. But the values of other goods are likely to change relative to those in the eligible list under the action of ordinary economic forces, and they may be subject to further relative changes owing to the action of the plan itself. These effects hinge on the action of the plan in absorbing and releasing commodities, and to this we may now turn.

The most extravagant hopes of adherents of the plan rest on the idea that it would furnish an unlimited demand for the basic commodities, taking all the producers could turn out, with no fall in the average price paid. This it would not do. What it might reasonably be expected to accomplish is to afford temporarily an added market at times of overproduction and threatened low prices, but the amounts of goods absorbed would come back on the markets in about the time required for added amounts of currency to find their way into general circulation. This might in itself exert some stabilizing influence on business, but it is subject to two serious qualifications. The list of commodities which would feel the temporary added demand is too limited to afford comprehensive relief, and the supplies temporarily absorbed might come back on the market long before a revival put the market in condition to absorb them; in fact, they might come back just when business was struggling to lift itself out of the depths of depression.

These conclusions hinge upon one question of central importance, namely, how much of the various commodities would the government receive, under the natural action of economic forces as provided by the plan? The natural conclusion is that the government would absorb these goods until its total holdings represented approximately the number of dollars required as currency under present conditions, and not permanently more nor less, though it might temporarily receive more in time of general overproduction or depression. This amount would, of course, show a long-term upward trend as the volume of currency now does, and to about the same extent.

The obvious reason for this conclusion is that, if more goods were turned in and more dollars put into circulation, dollar prices of goods in general, including the currency-eligible list, would rise until it would be to the interest of the dealers to turn in dollar certificates in exchange for commodities and sell the commodities in the open markets.

Those who hold to the quantity theory of money will accept this proposition unqualifiedly. The advocates of this form of commodity dollar, on the other hand, hold the quantity theory to be discredited and hope for a large absorption of commodities without such a rise of money prices as would bring the process to an early end.

This rests on the assumption that there would be automatic "sterilization," that idle currency would pile up and that the people would put their savings in this form, representing claims to the goods held as currency reserves by the government. This amounts to assuming that the people in general would suddenly begin to prefer to keep their savings and investments in a form yielding no interest, while interest-bearing investments remain open. There is not the slightest reason for expecting this illogical and uneconomic behaviour, and nothing in the proposed plan tending in any way to bring it about. There would soon be irresistible pressure to invest these funds, which would shortly mean spending an approximately equal amount for capital goods.

Some temporary sterilization of currency might, it is true, take place. Some of the currency would flow into bank reserves and the bankers might not at once use the full power of the expanding currency as a basis for expanding credit. But such a sterilization of reserves, on any large scale, would not last long. It might delay the rise of prices, but would not prevent it permanently.

At present the government does not receive all the gold produced or received in the country each year, even omitting that which does not stay in the country. Part goes into the arts, and this part is determined by the laws of supply and demand. Gold flows to the government until the competing value of gold for use in the arts outbids the government for the rest of the supply. The same forces would be at work under the proposed plan, with the exception that the amount of goods flowing to the government, once the currency reserves were built up, would be only a small percentage of the total annual production instead of a very large percentage as in the case of gold. The net inflow would be presumably in the neighbourhood of $180,000,000 worth per year, out of a total production of some seven billions.* This is because currency uses would not permanently absorb much more than this without an increase in prices. In other words, the government would not afford a market for more than a very small proportion of the annual output of any one commodity, or of all of them put together. And what it did absorb would be at least partly at the expense of the producers of gold, and would therefore not be a clear net addition to the national volume of employment and production.

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* The figure of $180,000,000 is taken as representing approximately 3 % of our normal currency supply, the figure which the League of Nations' gold survey takes as necessary to maintain price stability in the face of the normal annual increase in the volume of trade. Our gold supply is now, in all probability, abnormally large, so that we are not likely to need more than this 3 % in the near future, and more probably less.

The essential point is that the plan would not, as its adherents hope, afford a system whereby every producer—not even every producer of currency-eligible goods—could automatically coin his goods into money and use the money to pay his workers and meet his other expenses of production. Most of the producers would have to get the money for these purposes in precisely the way in which they do it now, by selling their products to private individuals or business enterprises who want them for the regular purposes of private use. The amount the government would permanently absorb would have no relation to the excess of producing power above consuming power, being limited by an entirely different set of forces.

Quite independently of this point, it should be self-evident that so far as single commodities are concerned the likelihood of overproduction remains substantially as it is now. If any one basic commodity is produced in disproportionate amount in any one year, the plan clearly offers no market for the surplus. The government can take only the same proportion of this commodity as of all the others. The present difficulty of the producer in such a case is not in being unable to sell his commodity at all, but in being unable to sell it at a price which will reimburse him for the expenses of production. If such a surplus of one commodity were to flow into the type of market afforded by the commodity-currency brokers who would arise under this plan, the price would be likely to fall even more sharply than at present, since there is an absolutely fixed limit to the proportion of that particular commodity of which they can dispose to the government. The natural outlet for the inevitable surpluses would be through the present type of channels, with the present type of result, namely, a sharp fall in prices, disastrous to any producers who have overproduced a commodity, especially one of relatively inelastic demand. Such producers would then have to curtail operations, just as now, if they were in a position to do so.

If there were a general overproduction of the basic commodities in the currency-eligibility list, there would still not be the relief expected, though there might be a temporary cushioning of the shock. The government would absorb increased amounts of commodities, issuing currency notes in exchange. This would have a twofold effect. The first effect would be to take the oversupply of currency-eligible goods off the market. This would sustain the prices of these goods; but if overproduction were general, it would leave other goods to decline in price. This part of the effect would be essentially that of a valorization scheme automatic in character, more general than any previous scheme, but applied to a list of commodities chosen without reference to their need for this stimulus.

The second effect would be the chain of events resulting from putting more money into circulation. Just what would happen is not easy to judge with confidence, because we have little or no experience of large expansions of the currency at a time of depression, when the currency we have is not being utilized up to its capacity. The effect might depend on whether specific measures were being taken to activate the sluggish lending-power of the banks—for example, by loans to finance expansions of public works, and so push the added currency into active circulation. Without such measures, the increased currency might take longer than usual to find its way into general circulation and raise general prices. Ultimately the rise would come, and would affect all commodities; but in the initial stages it would probably be more strongly felt by some than by others, according to where the funds first flowed. They would be likely to take effect on security prices before they were diffused among the general commodity markets. When this final diffusion happened—whether sooner or later—the prices of the currency-eligible goods would rise with the rest. They had been prevented from falling in the first place, and when they rose the dealers would turn in currency to the government and take out goods until most of the goods that had been locked up since the advent of overproduction were turned loose again in the channels of trade. Thus the locking-up of additional goods in government storage would come to an automatic end, and the prices of these particular goods would return to a normal relationship to the prices of goods in general.

If the markets lagged in reabsorbing these currency-goods, their prices could not fall (on the average) beyond narrow limits. Instead, the currency would simply remain redundant and prices of other goods would rise, leaving the currency-goods behind. Then the demands of trade would call for more currency than before, and by just so much the goods originally absorbed by the government would stay absorbed for a while longer, until the price-relationships of different groups of goods returned to normal. Until then production of the currency-eligible goods would be relatively depressed.

But there would be no progressive absorption. Excess supplies would have to be disposed of or held over *in the business system itself*, probably within the length of one full business cycle. As these cycles average about forty months in length in the United States, this puts a fairly definite limit on the government's absorption of goods produced in excess of normal demand. In the end, the producers of the currency-eligible goods might suffer, and might have to curtail output later instead of sooner.

In the meantime both the absorption of goods and the alteration of the course of price movements might, on the whole, be good for business. Or they might not. The effect might be in the general direction of stabilization, not only of prices but of productive activity and employment; but some of the movements might happen to be timed so as to produce the opposite effect.

The essential thing is that industry would not be freed, except partially and temporarily, from the necessity of disposing of its own products through its own channels. And if these channels would not absorb the amounts produced, there would be curtailment and unemployment, which would proceed in a vicious circle as they now do: demand shrinking because people are unable to buy, people unable to buy because they are out of work, and industry unable to give them work because demand has shrunk.

And even the indirect benefits of general price stabilization could not be expected from the plan with any certainty for the reason that the list to be stabilized could not be made representative of commodities in general. We have seen that there is still reason to expect some alternate rise and fall of general prices, the currency-eligible list being now at an advantage and now at a disadvantage as compared to others. And since the war we have seen that these discrepancies in the movements of different groups of goods can be very large. It also remains true that, in the case of any and every single commodity, the producers would be liable to a disastrous fall of the price if they carried production too far, just as now, and would have the same motive to limit production, or run the same danger of loss if they were unable to limit it.

4. THE TRANSITION PERIOD

The above argument deals with what would happen after the government's commodity reserves were built up. During the transition period, when the reserves were being built up, there would be a great and unhealthy increase in the total demand for currency-eligible commodities. Nearly one full extra year's production would be crowded into the three years, or five years, or whatever period it took to make the shift in currencies.

It might be argued that the increased demand for the currency-eligible commodities would not equal the full amount taken by the government, because to some extent the market would accept these stocks of goods as potentially available, and substitutes for goods stored elsewhere, and therefore would not find it necessary to keep such large total stocks in private hands. However, this neutralizing influence is not likely to be very substantial. In fact, it would probably amount to nothing at all, because these goods absorbed by the government would not be actually available to meet the needs of industries. A general shortage of this list of goods, expressed in a general rise of their prices, would have power to draw these goods out of government safekeeping in the legally fixed proportions, which would never be the precise proportions in which industry had need of them. But the fact that one industry wanted more cotton would not by itself be enough to enable it to get cotton from the government currency stocks—the government offering composite bundles of goods or nothing. Thus it seems probable that the government reserves would not relieve private producers of the necessity of keeping stocks of the usual size. They would then be a clear addition to the stocks the nation would have to keep.

There would be, then, a great stimulation of the production of these particular goods; but it would be of a temporary character, ceasing almost entirely as soon as the reserves were built up. Such a temporary stimulus is just the kind of thing which invites the evils of "overproduction" as soon as the stimulus is removed and producers must learn to get on without it. It is not a thing to be desired, even from the standpoint of avoiding overproduction.

This transition period would also witness the distribution of most of the gold this country now holds. The effect of this on world levels of gold prices, and the resulting disturbances of foreign exchanges, would be not the least of the effects of the plan, and would be too far-reaching to consider in detail in this limited study. They would react on our domestic conditions, and might well add serious elements of additional strain and disturbance to our own business cycles during this period.

5. EFFECTS ON THE SYSTEM OF MERCANTILE DISTRIBUTION

One further claim has been made for this plan, namely, that it would "eliminate the selling operation from the distributing process," and thus avoid the enormous cost of selling, and vastly increase the efficiency of the economic system. As to this claim, the high costs of selling which are referred to certainly exist in the more extreme cases; but they are for the most part the costs of selling *finished products to the consumer*, not the costs of wholesale distribution of durable and standardized staples such as would be suitable for money use under the proposed plan. These highest selling costs would in no way be avoided by this plan. Furniture, dry goods, and groceries would still have to be distributed to the consumer; and the plan does nothing to reduce the present costs of this operation, which are admittedly a serious matter, and involve much waste.

In the second place, even for the commodities eligible for money use, the plan would not, as we have seen, set up a substitute for the present system of distribution, since the government would absorb only a small part of the annual output of these commodities. The rest would have to find its way through private channels as at present. What the plan would do would be to increase somewhat the costs of distribution by adding a system involving vast amounts of additional storage, with its operating costs and costs of deterioration, and with at least two classes of brokers to be supported.

The producer of cotton, for example, would market his crop as at present. If one of the dealers into whose hands it came chose to use the government channels to dispose of it, he would seek a broker specializing in cotton, who would buy it. This broker, in turn, would seek a broker of another class, who would make a specialty of making up composite bundles of rights to all the commodities in the list, in the proportions necessary to turn in to the government in exchange for dollar certificates. There would probably be also a third class of brokers, dealing in odd lots, to whom brokers of the second class could dispose of any surplus they might have of one or more commodities, not matched by the necessary amounts of the others, or from whom they could buy any small amounts not forthcoming from the brokers of the first class.

This sketch is to be taken merely as suggestive of the kind of specialization which would be likely to arise, not as defining precisely this particular classification as the one which must inevitably come to pass. The essential point is that there would naturally be a rather elaborate system of brokers, and their functions would not be costless. The cost would probably not be very high, as such brokers could deal on fairly narrow margins. But the net effect of adding this system to the present scheme of wholesale distribution would certainly not be to reduce the total cost of the whole structure.

6. INTERNATIONAL ASPECTS

Like various other currency plans, this one would raise special difficulties if adopted by one large nation alone, since the gold flowing out to the rest of the world would bring about a revolution in prices. Yet international adoption of the plan also appears peculiarly difficult—in fact, impossible in the sense of the adoption of a physically identical standard by all countries. This being the case, it would be impossible to establish parity of the exchanges within such narrow limits as are afforded by the gold-shipping points under a freely-acting system of gold standards. Furthermore, one can hardly imagine what system for settling international balances could be set up if the nations in general were to adopt a composite-commodity currency. In the present state of international commercial relations the idea of settling balances by shipping composite bundles of basic commodities is merely grotesque. What would presumably happen would be quite wide fluctuations in the international exchanges, and a greatly increased reliance on securities, or on mere credit transfers, for the adjustment of temporary balances in one direction or the other. The certainty and definiteness that attends a shipment of gold between gold-standard countries would have disappeared.

7. CONCLUSION

The crucial points of the argument have been sufficiently reiterated from different angles, so that further repetition would be needless and wearisome. Suffice it that we have shown that the proposed plan would not open up a great new demand for all the goods that might be produced, but a demand strictly limited, and at least partly offset by a decline in the demand for gold. Overproduction would still, aside from temporary relief, have to be disposed of in the private markets; and if they would not take the goods, curtailment of output would have to come, sooner or later, for essentially the same reasons as at present.

The plan also has some interesting possibilities as a shock-absorber of a temporary sort; but there seems to be no assurance that it would be timed correctly. And it would afford temporary relief and limited valorization to a list of commodities selected without reference to their need of it. On these grounds, and not because the more extreme claims of its advocates are valid, the principle involved probably deserves more serious scrutiny than it is likely to receive. While a stabilized dollar of another sort would probably render the main service of which this plan is capable, there are certain features of the action of this plan which would not be found in mere price-stabilization plans as such.

Features which have been barely mentioned are the cost of the plan, including a constant burden of deterioration in the commodities in storage, and the violently disrupting effects of throwing our vast gold supply on the world market. If the plan would do what is claimed for it, it would be well worth these costs. But it has been sufficiently shown that it would not do what is claimed for it; that its possible benefits are of a different and a lesser sort and balanced by uncertainties and positive dangers, so that the large and certain costs may well deter us from adopting it.

MATERIALISTIC, PSYCHOLOGICAL, INSTITUTIONAL ECONOMICS

JOHN R. COMMONS, *University of Wisconsin, Madison*

THE so-called institutional school of American Economists is sometimes spoken of as "peculiar," descending, as it does, from Thorstein Veblen. But rather is the American school that of the Supreme Court of the United States, derived from the law of custom rather than codes and statutes; with its theory of Value conforming to that of H. C. Carey; its theory of property expounded by H. D. MacLeod, and a new theory of intangible property during the past forty years derived from prices and collective action as determined to be the customary and reasonable values and practices of business.

The significance of this judicial theory of economics arises from the fact that since the time of John Locke the British and American economists have had a double meaning of *Wealth*, a *material* thing and the *ownership* of the thing. The Court takes the ownership side, the economists the material side. The one is institutional, the other is materialistic economics.

This double meaning is seen in the term "commodity." A commodity is a material thing which is produced, owned, exchanged, and consumed. The ownership and right to exchange belonged, formerly, by natural right to labour, since, according to Locke, labour produced 99 % of the *value* of all commodities, including land. This ownership is *property*, meaning by property all of the *rights* of property, such as the right to exclude others, to use for self, to withhold from others what they need but do not own, to alienate and acquire these rights. Hence the double meaning of wealth was materials and property.

Materials and property were assumed by the classical and psychological schools to be identical. If a calf grows into a cow, then the ownership of a calf grows into the ownership of a cow. Therefore the proprietary meaning could be eliminated and attention be paid only to the material meaning. They treated other kinds of property, such as debts and good will, also as commodities.

But the classical economists were unable to do anything with consumption proper. They dismissed consumption under the psychological name of use-value which could not be measured, and stopped their theory at the point where the ultimate consumer bought the ultimate commodity.

It turned out that their psychological use-value had a threefold meaning. It meant the objective physical uses of materials, equivalent to national wealth, as Ricardo pointed out when he distinguished Value from Riches. The latter, he claimed, was Smith's meaning of use-value. This kind of value could, however, be measured by physical units such as bushels or tons.

The parallel meaning of use-value was the general happiness or welfare of society, proceeding from these materials, which, however, could not be measured and therefore was rejected.

The third meaning was the diminishing utility of Gossen and Jevons, followed by Menger and the Austrian school.

The peculiarity of the physical meaning of use-value was that it diminished with wear and tear, depreciation and obsolescence, but not with demand and supply. The depreciation could be restored by labour which also augmented the quantities of use-value or wealth of nations. The obsolescence was a matter of style and invention, as when arrows change to dynamite. For this reason we name these meanings of use-value Civilization Values, since they are evidently psychological in the sense of happiness in general, but they change with changes in civilization and not with changes in supply or demand. Or, stating it in contrast with the third meaning of use-value, the uses of materials do not diminish *per unit* with increasing abundance nor increase per unit with "increasing scarcity."

The classical economists knew nothing of this meaning of utility, although later economists have mistakenly read back into the classical meaning of use-value the later meaning of diminishing utility. But the diminishing utility school was a second school of commodity economists, in the material meaning of the term. The classical school was objective, and rejected the subjective use-value; the psychological school was subjective under the meaning of diminishing and final utility. Both started with the same unit, a material thing, and both eliminated property by taking it for granted as identical with the material thing or the value of the thing.

But the institutional school starts with transactions which transfer ownership and thereby create debts.

The separation of property from materials as an independent variable was not made until the middle of the nineteenth century, accompanying the disastrous fall in prices from 1815 to 1849, and the rise of the idea of Association of Labour in contrast with Smith's Division of Labour. But the separation was made by a variety of heterodox economists, especially Proudhon, Marx, Carey, and MacLeod. These were set aside by the orthodox economists or displaced by the new orthodoxy of the psychological school, but they were the beginners of the institutional school.

As regards Proudhon, when once it is understood that his "anarchism" meant individual private property, he had an almost identical counterpart in the United States at the same time. This was the Homestead and voluntary co-operation movements. The Homestead movement in the Northern States extended from 1830 to the Homestead Act of 1862. This latter marks the American revolution, known as the Civil War of 1861, which overthrew the Slave Power of the Southern States. The Homestead Act gave to each settler, free of cost, 160 acres of the public domain, whereas previously the slave owners and land speculators had been occupying it in blocks of thousands and hundred thousand acres. Slavery could not live on 160 acres of private property, and this was quite the Proudhon philosophy of substituting small holdings of individual property, based on the rights of labour, for great landed estates based on slavery, tenancy, or monopoly. And Proudhon's voluntary co-operation, during this period, abolished the Central Bank of the United States by substituting voluntary private banking, whereas his elimination of the merchant capitalist middlemen and bankers was undertaken under many schemes of voluntary co-operation. Proudhon's anarchism was American individual property against corporate and slave property.

The other heterodox economist of the period, Karl Marx, was probably the strictest of Ricardian economists, but his heterodoxy consisted in separating property from materials, in substituting associated labour for individual labourers, and in going back to John Locke for justification of ownership, this time, however, by the associated labourers instead of the individual labourers, who produced the materials.

Henry C. Carey in 1837 parted from the classical economists by going back to one of the three meanings of labour set forth by Adam Smith. Smith had defined labour as Labour Pain (toil and trouble), Labour Power, and Labour Saved, all of them identical in dimensions. But they were far from being identical. "Labour Saved" became Carey's meaning, whereas labour power was Ricardo's meaning and labour pain Smith's meaning. According to Carey, following Smith's third meaning, the value of the product was not the labour cost but the alternative labour which it would have cost the buyer if he had been producing it himself. He named this saving the "value of the service" rendered by the seller to the buyer. Supporting this doctrine was his idea of associated labour, instead of individual labour, which actually produced the national wealth.

On examination of the decisions of American courts, their idea of value of service has always been identical with Carey's meaning of labour saved. It has always been the alternative price which the buyer would have paid under the existing alternatives open to him. In other words, it was not the classical cost "embodied" in the product in the past, but what would be the alternative cost of *re*-production in the present, an entirely new idea, but corresponding to Smith's idea of labour saved. Thus the American courts have settled on the cost of reproduction of an identical plant in their valuations for rate-making purposes of the property of monopolistic public service corporations. The value of the service rendered by the corporation to the consumers is the alternative price the latter would be compelled to pay to the next best alternative seller, who does not have a monopoly. Labour cost for the producer was changed to labour saved for the consumer. Carey had used this concept of value of service to overthrow Ricardo's labour cost doctrine of rent and to support a protective tariff. Bastiat borrowed it afterwards to confute Proudhon and the socialists, and to support both domestic and foreign free trade. But this same value of service is the foundation of the economic theories of the American courts, and therefore it is the value theory of American institutional economics.

But it was another heterodox, MacLeod, in 1856 and succeeding publications, who separated property entirely from materials and built his sytem on the Negotiability of Debt resulting from the alienation and acquisition of ownership.

MacLeod, as a common-law lawyer, asked, What is it that is actually exchanged? Is it the material things or is it the rights of ownership of the things? The material things, he held, belong to the fields of production and consumption, but exchangeability was a legal device by which ownership of the materials, as well as debts, was alienated and acquired. Economic science deals only with this alienability of property, but it is other sciences which deal with the production and consumption of the materials.

MacLeod was therefore heterodox, and his name was dropped until recently from the recognized list of British economists, because it was deemed that he counted the same thing twice, once as a material thing and once as its ownership or a debt. But this was a mistake. He did not count the materials at all. What he did was to change the ultimate units of economic theory from the production and exchange of materials to the transferability of ownership and debt. He named debts "commodities," indeed, because they were exchangeable, but he distinguished between the commodity markets and the debt markets. The commodity markets were the markets where ownership of material things was transferred; the money markets were where the ownership of debts was transferred. The two were tied together by the transactions which created debts equal in value to the value of the ownership which was alienated by the transaction.

Comparing the legal meaning, then, with the classical meaning we have two meanings of the word exchange: MacLeod's alienation and acquisition of ownership, and the economists' exchange of material things. If we substitute terms of activity, then the legal term is Transaction and the materialistic term is Physical Delivery of the product to the buyers. We distinguish them as Transaction and Delivery.

A transaction thus creates two debts and their equivalent credits. These are familiar enough in modern business. One is a debt of delivery of the materials, the other a debt of payment. A steel corporation in New York sells 1,000 tons of specified quality of steel, at 20 dollars per ton to be delivered at a certain time in Shanghai or Chicago. The corporation imposes upon itself a duty of performance whose economic equivalent is a debt of physical delivery. This is because the ownership of the steel has passed to the buyer at the time of the transaction in New York, and meanwhile there is only a creditor-debtor relation until the delivery is made and accepted. The buyer, having obtained ownership at the time of the transaction, can sell his steel at once in New York or anywhere up to the delivery, even on the high seas. The ownership which he sells is secured by a negotiable debt of the seller to perform a delivery, represented by a bill of lading. The duty of delivery is a duty to carry through a labour process of production, including transportation.

MacLeod contended that this labour process belonged to the physical or technological sciences and not to political economy. But it is evidently a duty of performance just as much as his is a duty of payment.

This duty of payment is the financial equivalent of the transaction in New York, and the one with which MacLeod concerned himself. The buyer gives his promissory note for 20,000 dollars payable in 60 days. Since this duty of payment is negotiable, the steel producer sells it at the bank at, say, 6 % per year discount, and the actual price received by the producer for his steel is 19,800 dollars in the form of a banker's demand debt which serves as money.

It is significant that this formula of a transaction may be stated in terms of psychology. The producer sells 1,000 tons of steel utility at a marginal utility of 20 per unit, or a total utility or value of 20,000 units minus the futurity discount or agio of 200 units of utility. All that is needed to shift it to institutional economics is to introduce rights of property, legal units of measurement, the creation, negotiability, and release of debt, and the enforcement of the two duties by the collective action of the state, or of a board of trade, or chamber of commerce, or produce exchange, or similar body which, by collective action, sets up an organization for judicial decision under the name of commercial arbitration. It would then read 1,000 tons of use-value, steel; 20 dollars per ton marginal utility or price, 20,000 dollars future total utility or future value; 200 dollars futurity agio or discount; 19,800 dollars present total utility or value.

A study of the psychological economists, from Jevons to the American Fetter, shows that they have gradually developed their psychology almost to this ultimate identity, and they might as well now call themselves institutional economists as psychological economists. Fetter has made this transition in his recent *Masquerade of Monopoly*.

Institutional, or proprietary economics, since it is a social relation, requires a precise concept of Time and a precise measurement of Time, which shall distinguish past, present, and future. MacLeod was the first to give this precision. He distinguished "the present" as a moving zero point of time between the incoming future and the outgoing past. The classical economists, dealing solely with labour and materials, were concerned mainly with the past production and accumulation of materials up to the present, for purposes of future production. But they did not investigate what they meant by the present or the future. The psychological economists, from Bentham to the present day, dealt only with present sensations of pleasures and pains, but if we examine what they meant we find that they always had in mind rational beings for whom expectations were always involved in present pleasures and pains. Instead of pleasure and pain they might as well have used the term Futurity, for, on examination, all of the psychology they used for economics was Futurity. But property is institutional futurity.

This was the reason for MacLeod's precise meaning of the present as a zero point of time always moving into the future, and of "incorporeal" property, or debt, as always a forecast of the future but discounted in value to the present point of time. This was true also of his "corporeal" property, though confused somewhat with the classical accumulation of materials from the past. This corporeal property, for him, meant the present right to give a good title in any present or future transaction which transferred the ownership of the corporeal thing.

If transactions are the activities which transfer legal ownership at a point of time, it nevertheless is evident that there must be some kind of psychology preceding the transaction. This psychology has been elaborately developed by the common-law courts under the general name of the negotiations and intentions of the parties. When a dispute occurs the court must determine in some way what the parties intended and whether the intentions were lawful or unlawful. They must make their inferences from the transactions of the parties, and, since they cannot read the minds directly, they have developed a set of assumptions or working rules, derived from a long line of precedents, from which they read intentions into the minds of participants in the transaction, even though there were no such intentions. This may properly be named a behaviouristic psychology, but in order to contrast it with the many kinds of individualistic psychologies in the history of economic thought, we give it the social name of negotiational or transactional psychology.

In the common-law decisions the most general assumption of a fair or reasonable transaction is that between a willing buyer and willing seller, that is, in these decisions the courts make the distinction between persuasion, coercion, and duress. This is purely an institutional distinction, not to be found in any materialistic or psychological economics, and consists in the long historical process of endeavouring to eliminate economic coercion and the duress of violence, which might be deemed to obstruct their ideal of Willingness in a bargaining transaction. Thus the psychology of the courts, in deciding a dispute, is a volitional psychology, taking into account the economic and social limitations within which individuals are restricted in making their choices.

The introduction of precise measurements of Time required in institutional economics enables us to make the distinction between closing the negotiations and "closing the transaction." The negotiations are closed at the point of time when the transaction takes legal effect by the closing of the contract for transferring the ownership. The transaction is closed when the last of the two debts created by the transaction is released, either by payment and acceptance of money or by delivery and final acceptance of materials. Thus a transaction lays down a private economic law, which, under modern capitalism, will be enforced by the courts, and may endure one day or a hundred years, or indefinitely into the future.

We here need to distinguish another double meaning, this time of the word possession or control. The commodity economists, whether of the classical or psychological school, having eliminated the institution of property, always meant physical possession or physical control of materials, which was, of course, a labour process needed in order to use or consume the materials. But the courts meant legal possession, or legal control, vouchsafed by the laws of property. He who has legal control can transfer legal interests and give orders to labourers, but those who have physical control are the labourers themselves who produce and deliver the product under the commands of those who have legal control.

But there are two other forms of economic transactions for which the courts have laid down working rules. These are managerial and rationing transactions. The decisions on bargaining transactions endeavour to approach the ideal of equality between willing participants, but the managerial and rationing transactions are based on the relation of superior to inferior. The managerial transactions have been developed in a long line of decisions on master and servant, employer and employee. The superior gives orders, the inferior must obey. The behaviouristic psychology is Command and Obedience.

The same psychology is true of rationing transactions. But here the superior is a legislature, or board of directors, or even a dictator backed by collective authority, which apportions, without their individual consent, the wealth or jobs of the nation or concern among inferiors. A judicial decision is also a rationing transaction, because it transfers property without private bargaining with the judge, which has become unlawful, and the managerial transaction, in this case, is transferred to the police or sheriff who executes the will of the judge upon inferiors. Consequently the only behaviouristic psychology permitted in rationing transactions is the arguments and pleadings of inferiors.

Thus the negotiational psychology differs with the kinds of transactions. In bargaining transactions it is persuasion, coercion, or duress. In managerial transactions it is arguments and pleadings. This psychology is behaviouristic and institutional, and cannot be found in the classical and hedonic economists based on materials, labour, and wants. An examination, however, of the communistic and fascistic economists reveals that they pay no attention to an analysis of the bargaining transactions between equals, but rest their theory of economics on the managerial and rationing transactions of superiors and inferiors.

While the psychological economists have approached institutional economics, there is another direction in which institutions have approached economics. It is in the historical transition from corporations to going concerns. This is of particular importance in America on account of the state and federal system of government. A hundred years ago the Federal Supreme Court, following Sir Edward Coke, declared that a corporation was a mere legal entity existing only in contemplation of law, and having therefore its situs only in the state of its incorporation. Practically (though legally any state can exclude a foreign corporation from doing business within that state), a corporation created by the state of New Jersey had all the powers in all the other states which the legislature of New Jersey might give to it. New Jersey, in 1900, originated the incorporation of holding companies and gave to them practically all the powers of an East India Company. Their property rights were valid in all other states as against the state legislatures, and even against Congress, thus evading the state anti-monopolistic laws. These powers had already applied to railway companies, telegraph companies, express companies, and the New Jersey law was put on the statute book of that state by the lawyer who used it to draw up the articles of incorporation of a manufacturing corporation, the United States Steel Corporation. After long previous discussion and many majority and minority opinions, the Supreme Court changed the meaning of a corporation from a legal entity existing only in the state which created it, to a "going concern" existing in any state where it does business. The new term was taken over from the custom and even terminology of business. By examining the way in which the term is used by the courts and business men, we can derive an economic definition of a going concern. It is concerted action existing wherever the concern acts and expects future profitable transactions. When the futurity stops the concern stops going.

But during the same period of the past forty years, when introducing the idea of going concern, the Supreme Court, by its decisions, has taken away from the states, and even from Congress, much of their former sovereign power to regulate these concerns in such economic matters as taxation, monopoly, labour. The Federal Court, indeed, remains the only tribunal which actually governs these concerns. This is because a corporation or citizen, objecting to a state law, can take his case to the Federal Courts, over the heads of the state courts and legislatures, on the ground of conflict of the state action with the Federal Constitution, bringing his suit against the enforcing officers of the state.

This gradual and indeed necessary encroachment of the Federal judiciary has practically made the Supreme Court the legislative body for the nation, with the legislatures and state courts acting in an advisory capacity. Thus an entirely new concept of sovereignty has grown up, which we name Judicial Sovereignty, under the supremacy of Federal judges appointed for life.

Anglo-American constitutional history has passed through three stages of sovereignty, the Executive Sovereignty from William the Conqueror to the Revolution of 1689; then the Legislative Sovereignty of Parliament to date. But the United States, by the written constitution of 1787 and the Civil War amendments following 1865, as gradually interpreted by the Supreme Court when cases arise, has finally established Judicial Sovereignty.

The courts follow what may be named the common-law method of making new law by the decision of disputes. It applies to all bodies of non-statute law, all of which may come under the jurisdiction of the Supreme Court. It is a common law *method*, not the historical common law.

All other courts must follow these decisions as precedents. Interpretations of the United States Constitution by the United States Supreme Court cannot be contested or reversed by either the Congress or the state legislatures, but only by their joint action by way of amendment to the Constitution; and all the courts have their powerful arm of the injunction and imprisonment for contempt of court, with their own executives, in the federal system called "marshalls," to enforce their decisions in all of the states. There are no administrative courts superior to the Supreme Court, and any private citizen or corporation can bring suit before a Federal Court against any executive (except the chief executive) of the state or federal governments, on the constitutional ground that his property or liberty is being taken from him without due process of law.

The Federal Courts, under a written constitution, do not resort to the older "fictions" which so incensed Bentham against Blackstone in 1776, as a device for "usurping" the supremacy of the legislature. The American courts have the words of the Federal Constitution and amendments which declare that no legislature or executive or court shall deprive any person of life, liberty, or property without due process of law, and they finally interpret the Constitution. Consequently, instead of "fictions," they gradually change the meanings of words in the Constitution, when disputes arise, by a process which they call "inclusion and exclusion." Inclusion extends a former meaning of a word to include the present case. Exclusion eliminates the present case from a former meaning. In this way the court, in the last two decades of the nineteenth century, changed the meanings of due process, person, liberty, and property as used in the Constitution. The changes are expressly stated and on record in the minority opinions of dissenting justices.

Due process had meant the traditional common-law *procedure* of the English and American Courts. But in 1884 this meaning was changed to "due purpose" or "justice," in addition to proper procedure. Due purpose means what the opinion of the majority of the Court decides to be just and reasonable.

The word "person" at the time of the Civil War amendments abolishing slavery meant a human being, but the court expanded the meaning to include a corporation or going concern.

The word property had the historic meaning of corporeal and incorporeal property (debts); but after 1890 the Court enlarged the meaning to what business men had come to name "intangible property." This change came in a decision against the state of Minnesota wherein the state legislature had attempted to reduce the prices charged by railway companies for the transportation of goods. The Supreme Court now declared that a legislative act reducing such prices was a deprivation of property "without due process of law," although it restricted only the power to fix prices, and that the limits of this legislative power to control prices was a judicial question. Hence a third meaning of property, unknown to MacLeod and the older common-law, became the right of an owner to charge such prices as he saw fit unless finally restrained by a federal court. This right to fix prices is "intangible property."

This change in meaning of property involved also a change in the meaning of liberty. In the Civil War amendments the word liberty had meant freedom from slavery, but now, after a leading decision in 1897, liberty became also the economic liberty of free access to markets and freedom in charging such prices as the owner saw fit.

Thus by changing the meaning of four words—due process, person, property, and liberty—judicial sovereignty was established during the past fifty years. The people can, indeed, change the Constitution by amendments, but these amendments require several years and an affirmative vote of three-fourths of the states. In such subtle questions as the meanings of words a popular vote is incompetent to act. Besides, the amendment itself, like the Civil War amendments, can be changed by the judicial process of changing the meanings of words.

It is not contended that the Supreme Court abruptly changes the meanings of the Constitutional terms. The change requires many years of minor cases in controlling legislative acts, but can be finally summarized in leading cases.

Thus the term intangible property becomes a new economic term, and requires economic analysis. It involves a transfer of ownership *at a price*. This economic analysis is the familiar analysis of a market, and, with the incoming of judicial sovereignty, may be shown by the following formula:

B	B^1
100 dollars	90 dollars
S	S^1
110 dollars	120 dollars

The ownership of an economic quantity, whether a commodity, a labour service, or a debt, is sold on its appropriate market. The two best buyers are competitors and the two best sellers are competitors. But from another point of view the two buyers offer opportunities for sale to the sellers and the two sellers offer opportunities for purchase to the buyers. Finally, a sale is made at a price somewhere between the extreme limits of 90 dollars and 120 dollars. These, from a study of the decisions, we may name the limits of coercion, or extortion. When this sale is made, then the parties are "off the market," and the third best buyer and seller take their places.

Thus there are possible four economic conflicts of issue in each bargaining transaction, and a decision by the Court on any one of them will change the dimensions of the other three. The economic decisions of American Courts may readily be classified around these four issues. One is that of fair or unfair competition. The other is that of equal or unequal opportunity, known in American decisions as reasonable or unreasonable discrimination. Another is that of reasonable or unreasonable price. The fourth is that of due process of law in changing any one of the three economic relationships.

This due process of law we name the working rule, for the time being, of the Supreme Court, which ultimately decides the issue. The name working rule also applies to all economic concerns in so far as they control, by collective action, the activities of their participants.

Here we reach the necessity of constructing a workable definition of an institution. An examination of the working rules of all concerns, whether the state or the private economic concerns of produce exchanges, stock exchanges, chambers of commerce, corporations, trade unions, etc., enables us to construct the definition of an institution as collective action in control of individual action.

But collective action, through judicial decision, in its control of one person creates a duty or its economic equivalent, a Debt, and this is identical with a right, or its economic equivalent, a Credit, on behalf of an opposite person benefited by enforcement of the duty. This is incorporeal property.

But if it is decided that there is no duty, then there is evidently no correlative right, and the economic equivalent now becomes a liberty, or absence of duty, for the one and an equivalent absence of right, which economically we name an Exposure to the Liberty of the other. This is the basis for intangible property.

Still further, it is by the collective action of the state or other going concern that the will of a puny individual is enforced in all parts of the world. A signature in New York is enforced in Chicago or Shanghai. To this remarkable extension of the modern human will through collective action in economic affairs we may give the name Expansion, another dimension of intangible property.

Thus a more complete definition of an institution is collective action in control, liberation, and expansion of individual action.

The distinction between the incorporeal property of debt and the intangible property of liberty to buy and sell was not known to MacLeod, and he therefore included both under the name of debt. But they are as different as is a debt from a sale, a credit from prices, and a creditor-debtor relation from a seller-buyer relation. The intangible property can also be bought and sold, and it appears under such names as good will, trade marks, patents, and especially under the comprehensive term, going concern. A going concern must have not only the good will of customers; it also must have "good credit," which is the good will of bankers, and "industrial good will," which is the willingness of labourers to work, and equally the good will of politicians and courts. Good will is not a subjective concept, it is the expected repetition of profitable transactions.

If, now, again we examine the history of Anglo-American economists, we find that their theories have passed through several philosophical and economic stages. From Locke to Smith the theories were those of divine beneficence whose equivalent is earthly abundance. During this period the duty to labour was enforced, as Locke explicitly said, and Smith accepted in his meaning of labour pain, as punishment for sin descended from the Garden of Eden.

But Malthus, in 1798, changed this theology to earthly scarcity, and a God who planned to evolve moral character out of earthly clay by competition and elimination of the morally unfit.

This changed the concept of nature from abundance to niggardliness, and consequently Ricardo came with his materialistic theory of labour power required to overcome the resistance of nature. When we trace this out through Marx and modern scientific management, we find that it is merely the concept of Efficiency whose unit of measurement is the man-hour.

Then came the psychological economists whose diminishing utility was simply a personification of scarcity, but which when changed to institutional economics becomes the institution of bargaining transactions in terms of money, which is the institutional measure of Scarcity.

Finally, the concept of collective action, rejected by all the economists as violations of Nature's laws, becomes the going concerns of institutional economics.

There are thus three meanings of the term economics in the historical sequence. First is Engineering economics, or Agricultural economics, the production of wealth, whose efficiency is measured by man-hours. Second is Home economics, with only psychological estimates, where production is for home or farm consumption. Between these two is Institutional or Proprietary economics, which rests on the fact that the physical possession required for engineering and home economics will not be permitted unless the parties have previously obtained legal possession by due process of law.

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SOME NEW MATERIAL ON THE THEORY OF DISTRIBUTION

PAUL H. DOUGLAS, *University of Chicago*

EVERYONE who has desired to make economics more truly a science has probably deplored the indefinite nature of the theory of distribution. Greater definiteness is being injected into the theory of value and of prices by the inductive studies of the elasticity of demand, which have been made by Moore, Schultz, Working, Ezekiel, Ricci, Frisch, Marschak, and others. In that field we are beginning to possess more or less accurate measurements of quantity-price relationships for various commodities and to work out approved techniques for further analysis. We are also beginning to comprehend more fully the family of commodity supply curves and to make tentative measurements of them.

But quantitative studies which explain the forces governing distribution are still largely lacking. The economic world has come to accept the principle that additional units of a factor of production such as labour, capital, and natural resources will, if other factors are held constant, add successively diminishing increments to the total product, and that the return to any unit will be measured by, and under conditions of competition will approximate, the amount added to the total product by the last unit of the factor in question. It can also be demonstrated in a similar fashion that if the production function is such that a given proportionate change in all of the factors taken together will occasion a corresponding change in the quantity of the total product,* then the marginal productivity of each factor, when multiplied by the number of units of that factor, will, when summated, be equal to and exhaust the total product. It can also be shown that the distributive mechanism is in equilibrium when the marginal supply price for each factor is equal to its marginal productivity.

All this is to the good. But there is lacking any quantitative measure of the degree to which an increase of 1 % in the quantity of labour will cause the total product to increase and the marginal product of labour to fall, and similar information is also lacking as regards capital. We do not know either the direction or the degree in which the labour supply responds to changes in the rate of wages or in which the flow of fresh savings responds to alterations in the rate of interest. And yet lacking such material, any discussion of the theory of distribution must be in the nature of the case either literary or, if mathematical, purely formal.

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* I.e. if production can be described by a simple homogeneous function of the first degree of magnitude.

It was in an attempt to remedy some of these defects and to provide inductive material for the study of distribution that the author began some eight years ago to carry on such studies, and he hopes that the results thus far, modest as they necessarily are, may throw some light upon these questions and at least afford a basis for further studies.*

In carrying out the study of production, indexes were constructed for manufacturing in the United States for each of the years during the period 1899–1922 of the three following series: (1) the number of persons employed (and the number of "normal" man-hours worked); (2) the quantity of fixed capital in buildings, machinery, and equipment reduced to dollars of constant purchasing power; (3) physical product. Taking 1899 as the base, or 100, for each of these series, it was found that by 1922 the quantity of labour had increased by slightly over 60 %, while the quantity of fixed capital had risen by approximately 330 %, or to a relative of 431. Throughout the period, indeed, the quantity of capital had increased very much more rapidly than the quantity of labour. Now the interesting thing to note was that the index of physical production always lay between that for labour and capital, and very much nearer the former than the latter, ending the period with a relative of 240, or an increase of 140 %. From the semi-logarithmic graph of the variables, the index of production apparently tended to lie at approximately one-fourth of the distance between the index of labour and that of fixed capital. It occurred to me that from these series we might find the effect of labour and capital upon production during this period. Professor C. W. Cobb of Amherst College, an accomplished mathematician, believed that the production function might be described by the formula:

$$P = b\,L^{k}C^{1-k} \tag{1}$$

Here P, of course, denoted product, L and C, labour and capital respectively, and b a constant. Since we believed that production in manufacturing might be described as a simple homogeneous function of the two factors of production, namely labour and capital, we made the sum of their exponents equal to 1·0, or to unity. By a modified method of least squares, values were found for b and k. Thus $b = 1{\cdot}01$ and $k = 0{\cdot}75$. A theoretical index of production (P') was then computed from the formula

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* A detailed treatment of the points discussed in this article, together with further material, is given in the author's forthcoming book on *The Theory of Wages* (Macmillan), 1933.

$$P' = 1{\cdot}01 L^{0{\cdot}75} C^{0{\cdot}25} \tag{2}$$

It was found that the computed index (P') closely approximated the actual index (P) throughout its course, the average deviation without regard to sign being only 4·2 %. Furthermore, such deviations as did occur were shown to be largely the result of the business cycle and primarily explainable because of the failure of our indexes of labour and capital to measure as sensitively as would be desirable the relative fluctuations in their use within the business cycle. Thus the index of fixed capital measured the quantity available rather than the precise quantity used. In a period of business depressions it overstated the quantity of capital because it did not allow for idle capital, while during periods of prosperity it understated the actual increase in utilized capital by not taking account of second shifts, etc. The index of the numbers employed was more sensitive, but it in turn was somewhat defective in that it did not allow for short-time in depressions and over-time in prosperity. It follows that the computed index would be expected to be greater than the actual index in the years of adversity and less in the years when business was distinctly good. Such was, in fact, the case in nearly every year, and this result in itself went far to lend added confidence to the results which had been obtained. It was also found that the deviations of both P and P' from their respective three-year moving averages closely coincided, and that the coefficient of correlation between these deviations was no less than +0·94.

Similar studies have been made by Professor Cobb for Massachusetts for the period 1890–1926, and by my colleague and associate, Mr. Aaron Director, for New South Wales for the years 1901–27. Following the same formula, the equation of production for manufacturing in Massachusetts during the period mentioned was found to be as follows: $P' = 1{\cdot}01 L^{0{\cdot}74} C^{0{\cdot}26}$, while that for New South Wales was $P' = 1{\cdot}01 L^{0{\cdot}65} C^{0{\cdot}35}$. It will be noticed that the results for Massachusetts were precisely identical with those obtained for the United States as a whole, and that those for New South Wales were closely similar. Furthermore, the average deviations of P' from P, while greater in the case of Massachusetts than for the United States, were still not unduly high, while in the case of New South Wales they were distinctly lower.

If we assume that the processes of distribution follow those of production and that the exponents were normally constant throughout the period, we would expect that in the United States labour would receive 75 % of the net value added by manufactures, in Massachusetts 74 %, and in New South Wales 65 %, and that the shares of capital would be 25, 26, and 35 % respectively. These proportions seem in practice to have been approximated. Thus the National Bureau of Economic Research in its study of *Income in the United States** found that labour's share of the net value product of manufacturing during the years from 1909 to 1918 was 74 %, a figure which was almost precisely equal to the proportion which theoretically would be assigned to labour, while for New South Wales Mr. Director found that labour's share during the period 1901–27 was on the average 57 %. This last figure, while somewhat below that which theoretically might be expected, was not strikingly less. It is furthermore interesting to note that if we compare the movement of the average value productivity of labour in various groups of manufacturing industries in the United States throughout this period with the relative movement of their real annual earnings, that we find on the whole a striking coincidence up to 1922. The same phenomenon is also to be observed in the coal-mining industry.

It is, however, not without significance that there was a striking divergence in the United States during the years from 1922 to 1929 in the relative increases of the average value productivity per labourer and average real wages. The failure of the latter to keep pace with the former was, in my opinion, one of the reasons why the depression has been so severe in my country.

All of these results give some added credence both to the equations of production and to the belief that the processes of distribution should at least normally resemble approximately those which we would expect from the equations of production.

If we may accept these results as approximately correct, it would therefore follow that in the United States, during the periods mentioned, an increase of 1 % in the quantity of labour, with capital constant, would normally be associated with an increase of three-quarters of 1 % in product, and that a decrease of 1 % would tend to be associated with a corresponding decrease of three-quarters of 1 %

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* Vol. 2, p. 98.

in product. In New South Wales a change of 1 % in the quantity of labour would normally tend to be associated with a change in the same direction of about two-thirds of 1 % in the quantity of physical product. Similarly a change of 1 % in the quantity of capital, with labour constant, would tend in the United States to be associated with a change in the same direction of physical product one-quarter of 1 %, and in New South Wales of one-third of 1 %.

From this material also we may derive estimates of the probable approximate elasticities of demand for labour and capital and the probable flexibilities of the curves of marginal productivity for each of these factors. Pigou has shown that, assuming constant shares of the product, the elasticity of demand for a factor is equal to the reciprocal of the sum of the exponents of the other factors of production. A common-sense proof of this is seen in the fact that this condition is absolutely necessary if the shares are to be constant. Since we are dealing with only two factors, it follows that under the conditions described the elasticity of demand for each factor is the reciprocal of the exponent of the other. The probable negative elasticities of demand for labour and capital in manufacturing during these periods were therefore:

Country	Period	Coefficients of Elasticity of Demand for	
		Labour	Capital
United States	1899–1922	− 4·00	− 1·33
Massachusetts	1890–1926	− 3·85	− 1·35
New South Wales ..	1901–1927	− 2·86	− 1·54

These coefficients are equivalent to the statement that a decrease of 1 % in the rate of wages would normally be accompanied in the United States by an increase of about 4 % in the quantity of labour demanded, and in New South Wales of a little under 3 %, and that an increase of 1 % in the rate of wages would normally be accompanied by corresponding decreases in the amounts of labour demanded. A decrease of 1 % in the rate of interest* would, on the other hand, tend to be accompanied by an increase of 1⅓ % in the quantity of capital demanded in American manufacturing, and of not far from 1½ % in the quantity demanded in New South Wales.

* I.e. of course, a relative and not an absolute change of 1 %.

What is perhaps a more significant way of looking at the relationship between marginal product and the quantity of labour and capital is to inquire what the probable changes in marginal productivity will be with given changes in the quantity of labour and capital. These we may term flexibilities of marginal product. These, familiarly known to those acquainted with the price studies, are the reciprocals of their elasticities of demand. For whereas the latter measures the relative change of X (quantity) with respect to changes in Y (price), and hence can be described by the formula $\frac{dx}{x}\Big/\frac{dy}{y}$, the former, or flexibilities, measures the relative changes of Y (price or marginal product) with respect to X (quantity), and are described by the formula $\frac{dy}{y}\Big/\frac{dx}{x}$. The flexibilities of one factor will therefore be equal to the sum of the exponents of the other factors, or, when we are dealing, as in this case, with two factors, they will simply be the exponents of the other. This gives us the following flexibilities of the marginal productivity curve in manufacturing:

Country	Flexibilities of Marginal Productivity Curve of	
	Labour	Capital
United States	− 0·25	− 0·75
Massachusetts	− 0·26	− 0·74
New South Wales . .	− 0·35	− 0·65

These relationships may be stated in the following terms: An increase of 1 % in the supply of labour will, if the supply of capital is held constant, in the United States normally lead to a decrease of about one-quarter of 1 % in its marginal productivity and to a decrease of about one-third of 1 % in New South Wales. An increase of 1 % in the quantity of capital, with labour constant, would normally lead in the United States to a decrease in its marginal productivity of about three-fourths of 1 % and in New South Wales of about two-thirds of 1 %. By working out simple arithmetical examples, the reader will discover that this will satisfy the condition that the shares are to be the constants indicated by the respective exponents.

It is, of course, not maintained that these relationships apply to all industries, all countries, or all periods. It is not even claimed that the exponents are constant from year to year, or that their sum must necessarily equal unity. It is merely submitted that the values fairly well describe the data collected. But it is to be hoped that further studies will be undertaken there and for other countries and that more flexible formulas, similar to those devised by Mr. S. W. Wilcox of the New York Department of Labour,* will be experimented with.

Turning to an examination of the effect of changes in remuneration upon the supplies of the factors, we find that the supply of capital is at any one time relatively fixed, but that of labour is susceptible to considerable variation. The quantity of capital can be likened to a lake fed annually by fresh savings, but the cubic content of which is many times the annual rate of flow. Thus Professor Cassel estimates that the supply of capital in Western Europe has increased at the rate of 3 % a year, which means, if the estimate is correct, that the total quantity of capital in those countries is approximately 33 times its annual increment of growth. It follows, therefore, that a doubling in the rate of capital growth in these countries would mean only an increase of 3 % in the total quantity of capital above what it would otherwise have been. Changes in the rate of annual savings create therefore at any given time only infinitesimal changes in the total quantity of capital, although in the long run, of course, these differences cumulate and are considerable.

The supply of labour which will be offered at any one time is, on the contrary, not fixed. It is possible for the proportion of the population which is gainfully employed to vary in some degree according to economic conditions. Juveniles, older people, and married women are relatively flexible in the matter of becoming a part of the active labour supply. Similarly the hours of labour are not fixed and immutable, but within limits are subject to change.

We have measured the relationship between differences in hourly wages and hours of work in various industries and states, and between changes in these variables over a period of years for a number of separate industries. In virtually every case we have found this relationship to be negative, and therefore one where higher hourly wages were accompanied by a shorter working week and lower wages with longer hours. By fitting regression lines to these observations, we obtained the elasticity coefficients of hours upon earnings. These we found almost

* Described in the forthcoming book on *The Theory of Wages.*

uniformly to range at the means between —0·1 and —0·2. This is equivalent to saying that an increase of 1 % in real hourly wages was normally accompanied by a decrease of from one-tenth to two-tenths of 1 % in the length of the working week.

In order to arrive at the probable effect of changes in real earnings upon the proportions of the population gainfully employed we also computed: (1) the average annual earnings in manufacturing for 1919 in 41 of the larger cities in the United States; (2) by deflating these averages by an index of relative food costs as between cities, we secured (3) an index of relative real wages, and this in turn was corrected for differences in the proportions of women and juveniles employed in the various cities.

We also computed the proportion of each age and sex group which was gainfully employed in 1920 in each of the given cities and correlated these with the relative real wages in these cities. The correlation was in virtually every case negative, and was significant in the case of juveniles, women from 25 years and up, and for those over 65. The various cities were then reduced to a standard age and sex distribution, and the number out of every 1,000 of such a population who would be employed in each city was found. Regression lines were fitted to these data and to those of relative real wages with each city serving as an observation. The regression of the proportions employed upon relative real earnings was found to be —0·17 at the point of averages, and consideration by the method of partial correlation of the possible complications introduced by varying proportions of the foreign-born and the negroes failed to change this appreciably. Our results, therefore, seemed to indicate that an increase of 1 % in real annual earnings would tend to be accompanied by a decrease of approximately one-sixth of 1 % in the proportions employed.

By combining these two sources of the labour supply, we find that an increase of 1% in hourly rates tended normally to be accompanied by a reduction of from one-quarter to one-third of 1 % in the quantity of labour offered.* It can then be said that gains in real income tended to be divided between a higher material standard of living and increased leisure. From two-thirds to three-quarters of the gain tended to be assigned to the former and from one-third to one-quarter to the latter.

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* I.e. (*a*) an increase of 1 % in hourly earnings led to a decrease of 0·1 or 0·2 % in the hours of work, and hence to an increase of 0·9 or 0·8 % in full-time weekly or yearly earnings; (*b*) an increase of 0·8 % in yearly earnings led to a decrease of 0·13 % in the numbers employed and of 0·9 % to a decrease of 0·15 %. (*c*) Therefore the total decrease in the quantity of labour ranged approximately between — 0·25 and — 0·33 %, and the increase in monetary income would range between 0·66 and 0·75 %.

From these apparent facts about the productivity and short-run supply curves of labour and capital several tentative "laws," or tendencies, can be developed. Perhaps the most important of these are the following:

(1) If there is a general improvement in the state of the industrial arts, so that the marginal productivities and the rates of return to both labour and capital rise, labour will tend to profit more per unit than capital. For the increased return will decrease the quantity of labour which is offered and still further raise its marginal productivity, while it will leave the supply of capital virtually unaltered. This alteration in quantities will somewhat reduce the heightened marginal productivity of capital.

(2) A deterioration in the state of the industrial arts will, however, work in the opposite direction, and, by calling forth more labour, will still further lower the marginal productivity of labour and reduce the rate of wages to a proportionately lower point than that to which the rate of interest would fall. There would in fact be a slight compensatory tendency for the rate of interest to rise because the increase in the quantity of labour would raise the marginal productivity of capital somewhat above the lower point to which it would have fallen had the quantities remained unaltered.

(3) If labour should improve its bargaining position and, either through legislation or collective bargaining, raise its wage rate above the normal competitive level, then the decrease in the quantity of labour offered would raise its marginal productivity and for a time at least make possible a higher rate of wages than was originally the case.

(4) The fact that labour tends to receive a larger share of the total social product than capital means that, other things being equal, an increase of a given percentage in the rate of wages causes a greater encroachment upon the return to capital than the same proportionate increase in the rate of interest would affect the *per capita* return to labour.

(5) The fact that the marginal productivity and short-time supply curves of labour are both negatively inclined presents an interesting contrast with the consequences which result when commodities have demand and supply curves which are both negatively inclined. As all students of the mathematical school know, Cournot dealt with this latter problem nearly a century ago and correctly pointed out that,

under competition, there was no determinate solution or point of equilibrium. For regardless of whether the supply curve cut the demand curve from above and then, more inelastic than the latter,* continued below it, or whether it cut the demand curve from below and then continued above it, the fact remained that an individual plant could, under atomistic competition, always reduce its cost more by expanding its output than it would lose from the reduction in the sales price of the product which its own infinitesimal addition to the total supply would effect. Although this would bring ruin upon the industry when the supply curve cut the demand curve from below and then extended above it, each individual plant would be powerless to hold back as long as competition prevailed, and the ultimate result of this movement would be widespread bankruptcy and a distinct tendency toward monopoly.

It might be thought at first that there would be a similar absence of equilibrium where the supply and marginal productivity (or demand) curves were both negatively inclined. But whereas in the case of commodities each individual producer tends to consider only his own internal cost (or supply) curve in deciding whether or not he will expand his output and can largely neglect changes in the sales price because of his proportionately small contribution to the total supply, this is very different in the case of the supply of labour. A given quantity of labour will only be supplied *if* a certain rate of wages is paid, and in the determination of this rate marginal productivity tends to play the decisive role.

Thus when the supply curve of a factor cuts the marginal productivity curve of a factor from above and then continues below it, as seems to be the case with labour where the supply curve has an elasticity of around —0·25 or —0·33 and the demand curve an elasticity of not far from —4·0 at the means, then we tend to have not instability but relatively stable equilibrium. For although to the right of the point of intersection the supply curve will be below the curve of marginal productivity, the latter, through the competitive bidding of employers, will normally fix the wage rate. This wage rate being higher than the supply price at any such point will operate to reduce the quantity of labour to that required to satisfy the conditions of intersection where the marginal supply price and the marginal productivity are equal. At any point to the left of this point of intersection, though the marginal productivity would be less than the supply price, the wage itself would operate to call forth an increased quantity of labour, so that again economic forces would move towards the point of intersection as the point of equilibrium.

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* Following the example of Marshall, price is plotted on the vertical axis and quantity on the abscissa.

If the supply curve cuts the demand, or marginal productivity, curve from below and then continues above it, then at any point to the right of the point of intersection the marginal productivity or wage will be less than the amount required to induce that quantity of labour to be forthcoming. To the left of the point of intersection, however, the fact that marginal productivity will be more than the marginal supply price will lead to a progressive reduction in labour units offered. There will be no equilibrium here, therefore, unless and until the supply curve turns sharply upwards and cuts it from below.*

If we turn from considerations of short-run equilibrium to those of longer duration we come into more shadowy ground, so far as historical movements are concerned. The supply of capital has, during the last century, been increasing appreciably more rapidly than the population, and it is this fact which is, to a large degree, responsible for the advance in the material standard of living of the workers. So far as the future is concerned, the prospects are that the populations of the United States and Western Europe will become virtually stationary within the next three or four decades. During that time there seems to be every indication that the relative growth of capital will be more rapid than that of population, and, barring wars and other catastrophes, the rate of real wages should continue to advance. It would also seem probable that capital will not reach its plateau when population reaches its maximum, but that on the contrary it will still continue to be fed for some time by net annual increments. This too will produce a rise in marginal productivity and in real wages. If wars, civil strife, and prolonged business depressions can be avoided, the future prospects of labour in the Western World are therefore relatively favourable.

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* I.e. in terms of moving from right to left.

LES ÉTAPES DE L'ADAPTATION ÉCONOMIQUE A UNE INFLATION SOUDAINE: FRANCE ET BELGIQUE DE 1919 A 1926

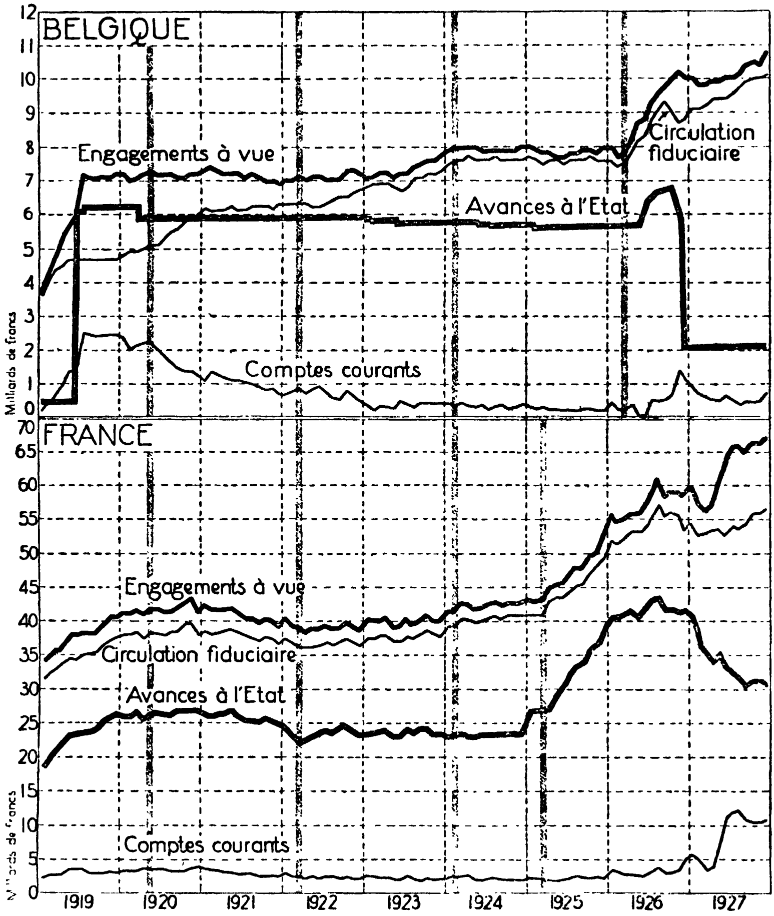
LÉON H. DUPRIEZ, *École des Sciences politiques et sociales de l'Université de Louvain*

DANS cette étude, nous nous proposons d'examiner d'un peu près un cas particulier d'inflation monétaire, afin d'interpréter les diverses phases de l'adaptation économique qui doit s'ensuivre. Notre but sera de mettre en relief l'action de la quantité de monnaie et de la parité des pouvoirs d'achat dans des conditions données, où la complexité et la longueur des réactions sont spécialement mises en relief.

On ne peut mieux faire, pour voir l'action de ces forces économiques profondes, que d'observer le cas suivant, où la suite chronologique est mise en lumière: une inflation assez forte se produisant soudainement, mais suivie d'une longue période pendant laquelle toute inflation nouvelle est enrayée. Nous assimilerons à ce cas celui d'une inflation plus lente, mais accomplie en temps de guerre, sous un régime de changes fixés et de prix réglementés; une adaptation réelle ne peut alors se produire qu'à partir du moment où les contrôles sont abandonnés. Malgré l'opinion fort répandue qu'en dehors d'une action de déflation positive ou de stabilisation, l'inflation doit s'engendrer et se perpétuer elle-même, il existe divers cas d'inflation soudaine et rapidement enrayée dans l'histoire monétaire d'après-guerre: la Belgique et la France en sont des exemples. Ce sont ceux que nous nous proposons d'examiner.

Commençons par établir les faits d'inflation.

Le cas de la Belgique est le plus clair (cfr graphique I). L'inflation a été accomplie à la fin de 1918 et au début de 1919, les billets émis ayant pour but de reprendre à la population les marks détenus dans le pays; cette opération a été accompagnée d'un emprunt de restauration nationale, destiné en partie à restreindre l'inflation; mais le résultat a été plus que neutralisé par l'impossibilité de fermer les frontières pendant la réoccupation progressive du pays. Dès juillet 1919, les avances de la *Banque Nationale* à l'État, qui comptabilisent ces échanges, se montent à 6,280 millions de francs. Ceci est un maximum qui est réduit à 5,980 millions en février 1920, puis encore progressivement mais d'une manière peu perceptible, pour descendre à 5,680 millions au début de 1926, avant la seconde inflation. L'arrêt de l'inflation pour compte de l'État se marque dès juillet 1919 dans les engagements à vue de la *Banque Nationale*; ils atteignent à ce moment près de 7,200 millions de francs et s'y tiennent jusque vers le milieu de 1923; ils montent alors par suite d'un accroissement du portefeuille commercial et se stabilisent un peu au-dessous de 8 milliards de francs de mars 1924 au début de 1926.



I. Les éléments monétaires de l'évolution économique de la Belgique et de la France de 1919 à 1927: la situation des banques d'émission, mensuellement, en milliards de francs.

En France, l'inflation s'est poursuivie pendant tout le cours de la guerre, mais nous pouvons commencer l'histoire des adaptations monétaires en mars 1919, lorsque le change sur New-York et Londres fut libéré. A ce moment, l'inflation n'était pas arrêtée; elle se poursuit pratiquement jusqu'à la fin de l'année 1919, quoique le maximum absolu se place à la fin de 1920. En décembre 1919 les avances à l'Etat atteignent 26,300 millions, en octobre 1920, 26,800 millions. Plus tardivement qu'en Belgique, il se produit ensuite un recul analogue, de faible importance, qui ramène les avances à 23,200 millions à la fin de 1924. Cette dernière date marque le début d'une nouvelle période d'inflation. Les engagements à vue et les billets en circulation ne donnent pas une indication fort différente: leur augmentation est pratiquement enrayée dès le début de 1920, quoique le maximum soit en octobre. Il y a ensuite une régression jusqu'en 1922, puis un accroissement lent, qui amène les chiffres de 1924 à environ un milliard de francs au-dessus de ceux de 1920, montant insignifiant sur des engagements à vue de 41 à 42 milliards. Ici l'inflation nouvelle se marque après mars 1925.

Les faits d'inflation monétaire, brièvement synthétisés ci-dessus, concordent donc jusqu'en 1925 pour la France, jusqu'en 1926 pour la Belgique, avec les prémices définies en commençant; nous estimons, en effet, pouvoir écarter de cet exposé la seconde inflation, celle de 1925 et 1926, pour des raisons qui apparaîtront plus loin. Examinons maintenant les phases de l'adaptation, en commençant toutefois par déterminer l'ordre de grandeur de la hausse des prix que peut provoquer l'inflation effectuée dans chaque pays; il va de soi qu'aucun chiffre précis ne peut être donné dans ce domaine, étant donné les modifications subies dans le volume des affaires et les usages financiers, ainsi que les répercussions de l'instabilité monétaire sur la vitesse de circulation de la monnaie. La comparaison est aussi rendue difficile par l'imprécision qui règne au sujet du volume et de l'usage des monnaies métalliques avant la guerre.

Ces réserves faites, nous pouvons tenir compte des éléments suivants. En Belgique, les engagements à vue moyens de la *Banque Nationale* en 1913 étaient de 1,081 millions, en 1920 ils étaient de 7,167 millions, soit dans un rapport de 100 à 663; d'après des estimations, la monnaie métallique et fiduciaire était de 1,400 millions en 1913 et de 7,200 millions en 1920, soit un rapport de 100 à 514. Sous les réserves indiquées plus haut, nous pouvons donc admettre que des indices de prix de l'ordre de grandeur de 500 à 600 représentent une adaptation suffisante aux influences monétaires.

En France, les engagements à vue de la *Banque de France* étaient d'environ 6,600 millions de francs en 1913 et de 41,800 millions en 1920: la proportion est de 100 à 634. La circulation totale était estimée en 1913 à 12,900 millions, mais elle comprend une masse de pièces d'or dont la vitesse de circulation était extrêmement restreinte. S'il fallait en tenir compte, on arriverait à un coefficient d'environ 350 pour la circulation fiduciaire et de billon de 1920; mais celui-ci est manifestement trop bas et il est plus correct de compter sur une augmentation de circulation effective de l'ordre de grandeur de 500 à 550. Le résultat n'est pas fort différent des calculs portant sur la Belgique, vu l'imprécision qui règne en la matière. Ceci explique que les deux monnaies aient dû s'engager dans une voie parallèle.

L'adaptation des prix et des changes aux nouvelles conditions monétaires n'a malheureusement pas pu se faire en une seule fois; elle a exigé des flux et reflux qui ont jeté le trouble dans les esprits au sujet de l'explication des phénomènes et inquiété l'opinion publique; ils ont permis aux intéressés de croire à la dépréciation monétaire continue alors que l'inflation était arrêtée et ceci a rendu la tâche des gouvernements très difficile de 1923 à 1925, parce que les fluctuations des changes paraissaient entourées de mystère.

Pour la clarté de l'exposé, il faut que nous distinguions nettement, dans le mouvement des changes et des prix, quatre phases d'adaptation; au cours de celles-ci nous verrons naître des déséquilibres nouveaux, qui expliquerons la genèse de la phase suivante. Ces phases peuvent se délimiter comme suit (cfr graphique II):

1ère phase, de hausse des prix, allant jusqu'au printemps de 1920.

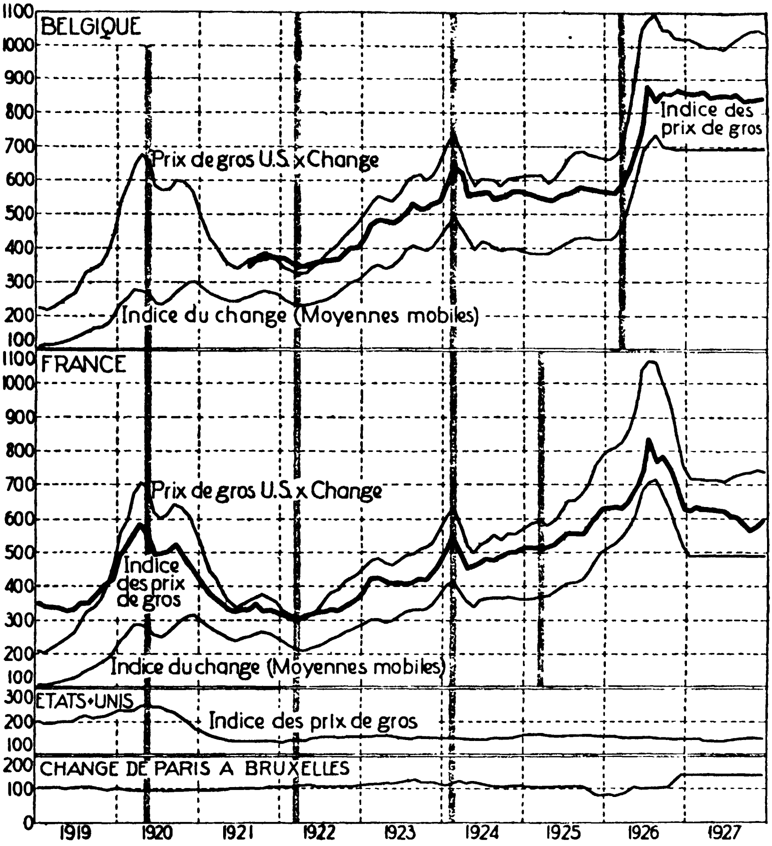
2ème phase, de baisse des prix, allant jusque dans les premiers mois de 1922.

3ème phase, de hausse des prix, jusqu'en février 1924.

4ème phase, de stabilité relative, allant jusqu'à la veille de la seconde inflation.

Au lendemain de la guerre, les prix de tous les pays furent entraînés dans une hausse très rapide, trouvant son origine à la fois dans l'inflation mondiale et dans les besoins énormes de marchandises qui devenaient tout-à-coup effectifs pour la reconstruction proprement dite, pour la réorganisation des entreprises sur un pied de paix et pour la reconstitution de la vie économique en général. En France, l'indice des prix de gros atteint 588 en avril 1920; en Belgique, l'indice officiel n'était pas encore établi, mais divers recoupements nous permettent de dire qu'il aurait été au-dessus de 650;* ainsi, en décembre 1920, date du premier calcul, l'indice belge était encore à 492, alors qu'en France on était déjà tombé à 417.

Ces indices de 588 pour la France et de 650 environ pour la Belgique sont à rapprocher des coefficients d'inflation dégagés plus haut. Ils les dépassent en effet légèrement mais sont du même ordre de grandeur. L'adaptation des prix intérieurs à la circulation fiduciaire est donc



II. L'évolution comparée des prix aux États-Unis, en Belgique et en France, et les changes belges et français, mensuellement de 1919 à 1927. Indices, en pour-cent de 1913 ou 1914 pour les prix, en pour-cent de la parité et moyennes mobiles de trois mois pour les changes.

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* Cfr L. H. Dupriez, *Méthodes d'analyse de la conjoncture économique et leur application à l'économie belge depuis* 1897, p. 203. Uystpruyst, Louvain, 1930.

accomplie et même peut-être dépassée. Nous n'oserions toutefois pas pousser nos conclusions aussi loin, car toute l'expérience ultérieure a prouvé qu'après la guerre les prix français et belges tendaient à se tenir régulièrement en dessous des prix américains, compte tenu des changes. La parité de pouvoir d'achat par rapport à 1913 oscillait autour du coefficient 0,90.

Cependant les changes ne montent nullement dans la même mesure. En France, et toujours en avril 1920, le dollar monte à 289 % de la parité,* en Belgique à 274 %. Or, ce point marque l'arrêt de la hausse pour une période assez longue, mettant ainsi en évidence une modification des forces en action. L'explication de ce phénomène est aisée à trouver, si l'on regarde à l'étranger et spécialement aux États-Unis, dont la monnaie nous sert de base de comparaison pour les changes. Les prix y étaient également enflés, les prix de gros atteignant le niveau de 247 en mai 1920. Sur cette base et étant donné le niveau auquel les prix avaient été entraînés dans les deux pays envisagés, les monnaies belge et française ne pouvaient pas se déprécier plus sur le marché des changes. La parité de pouvoir d'achat était atteinte et même dépassée; les prix américains multipliés par les changes donnaient 713 pour la France et 676 pour la Belgique. Les changes étaient déjà trop hauts pour les prix en vigueur.

Mais la crise ne pouvait pas manquer de survenir après une hausse aussi rapide des prix; elle éclata en mai 1920 et entraîna naturellement tous les prix avec une rapidité en rapport avec celle de la hausse précédente. Ces baisses cycliques des prix ne sont pas conditionnées par la quantité de monnaie en circulation et il n'est pas étonnant qu'elles se soient produites partout, bousculant les conditions d'équilibre des monnaies entre elles. Elles allaient, au cours de la seconde phase, de juin 1920 aux premiers mois de 1922, susciter de nouvelles causes de trouble.

Cette deuxième phase se caractérise par les mouvements suivants:

(1°) En fait de prix: une baisse qui atteint 48 % en France (de 588 à 306), environ 47 % en Belgique (de 650 à 342) et 44 % aux États-Unis (de 247 à 138);

(2°) En fait de changes: de courtes oscillations assez marquées mais sans modification fondamentale de niveau; toutefois les changes seront plus fermes au début de 1922 qu'au printemps de 1920.

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* Moyennes mobiles de trois mois utilisées dans le calcul des schémas. Nous estimons que ce serait forcer les faits de raisonner sur des situations momentanées de choses aussi variables que les changes.

Dans le domaine de la monnaie, le statu quo presque complet caractérise cette période en Belgique et en France.

Quels sont les liens et les conséquences de ces évolutions? Le mouvement qui semble avoir dominé la situation à ce moment est celui des prix de gros à la baisse. Ces prix s'effondrent littéralement sous le contrecoup des exagérations de crédit et de spéculation commises jusqu'en 1920. L'intervention des facteurs non monétaires se marque par le fait du parallélisme frappant entre les baisses des États-Unis et des nations européennes, malgré des conditions monétaires nettement différentes. Aussi les conditions d'équilibre des monnaies française et belge sont-elles détruites. Ceci se passe précisément au début de 1922, à un moment où les budgets sont sérieusement redressés, où les Etats retrouvent des capitaux sur leurs marchés nationaux, où l'opinion commence à envisager les questions monétaires avec plus de calme par suite d'une stabilité relative des changes.

Pendant les cinq premiers mois de 1922, marquant la fin de la deuxième phase, des déséquilibres de deux ordres sont à enregistrer par suite de la baisse des prix: le premier se rapporte à la théorie quantitative de la monnaie. Tandis qu'aux États-Unis la monnaie en circulation se trouvait réduite très fortement de 1920 à 1922, rien de semblable n'eut lieu en France et en Belgique; la vitesse de circulation de la monnaie avait donc dû baisser très considérablement et tomber à un point qui ne pouvait raisonnablement pas être maintenu longtemps. Dès que la dépression économique s'atténuait, on devait assister à une hausse des prix tendant à rétablir l'équilibre avec la monnaie en circulation. C'est ce fait qui allait entrainer des conséquences graves, puisque rien n'incitait les prix à monter parallèlement aux États-Unis, à cause de la déflation.* Le second déséquilibre a trait à la théorie de la parité de pouvoir d'achat; à la différence du premier, il ne s'établit que vers la fin de la phase étudiée. Dès juin 1921 les prix sont presque étales dans les trois pays en cause; en France et en Belgique ils réagissent même à peine aux fluctuations des changes. Ces derniers se redressent assez fortement au début de 1922, créant momentanément une disparité de pouvoir d'achat au détriment de la France et de la Belgique. Cette disparité n'apparaît pas bien forte sur le graphique II, mais elle l'est plus si l'on tient compte du décalage normal des courbes après la guerre. Elle est en tous cas suffisante pour mettre en branle une hausse des changes qui inaugurera, en mai 1922, la troisième phase de l'évolution.

* Il est sans intérêt, pour notre étude, de déterminer si la déflation aux États-Unis a été voulue ou spontanée; il nous suffit de constater qu'elle a eu lieu.

En mars 1922, la situation générale se présente comme suit:

Pays	Indice de la circulation	Indice des prix	Indice des changes New York	Changes x prix États-Unis	Indice de disparité*
France	Vers 515	360	215	305	118
Belgique	Vers 600	350	229	325	108
États-Unis ..	—	142	—	—	—

* Parité théorique 100, l'équilibre réel s'établissant plutôt vers l'indice 90 après la guerre.

Du printemps de 1922 jusqu'en février 1924 nous allons donc assister, très logiquement, aux réadaptations nécessaires. D'une part, les prix intérieurs devront monter, en France et en Belgique, pour se conformer de nouveau à la quantité de monnaie en circulation; d'autre part, la parité de pouvoir d'achat avec les États-Unis, après avoir été légèrement redressée, devra être maintenue dans ses grandes lignes. Comme les prix aux États-Unis restent relativement stables, ceci ne pourra s'accomplir que par une dépréciation des francs français et belge sur le marché des changes.

C'est ce qui se produit effectivement: le branle est donné par le fait de la disparité des pouvoirs d'achat, qui suscite, en mai 1922, une hausse du dollar à Paris et à Bruxelles. Dès que le mouvement est en route les prix se mettent à monter sans rencontrer de résistance. La hausse elle-même suscitera les achats et créera une période de conjoncture favorable, au cours de laquelle la vitesse de circulation s'accroît. Devant la hausse du dollar, il se crée même un esprit de panique au cours des derniers mois de 1923 et celui-ci engendre la situation critique de février 1924.

A ce moment, les changes ont dépassé le niveau d'adaptation et ce fait se traduit même dans les moyennes mobiles sur lesquelles sont basés nos calculs:

Pays	Indice de la circulation	Indice des prix	Indice des changes	Changes x prix États-Unis	Indice de disparité
France	Vers 550	544	415	631	86
Belgique	Vers 650	642	488	742	86
États-Unis ..	—	152	—	—	—

Les changes ont donc dépassé, dans la panique, leur niveau d'adaptation aux prix et à la circulation; aussi l'intervention de la *Banque de France* pour faire baisser le cours du dollar et enrayer la panique est-elle aisément couronnée de succès. Elle ramène les changes et les prix à un niveau un peu inférieur, qu'ils atteignent dès le mois d'avril 1924 et autour duquel ils oscillent jusqu'au moment de la seconde inflation.

Au cours de cette quatrième phase, que nous appellerons phase d'adaptation, il est nécessaire d'examiner séparément la France et la Belgique. En France, elle dure d'avril 1924 à mars 1925 et se trouve caractérisée comme suit: indice de la circulation vers 550, indice des prix remontant de 450 à 514, indice des changes passant de 338 à 365. La réaction de la *Banque de France* avait amené un certain excès de baisse et l'on s'acheminait de nouveau lentement vers des niveaux en rapport plus étroit avec la circulation monétaire. Les événements qui allaient donner le branle à la nouvelle inflation, en décembre 1924 et avril 1925, pesaient d'ailleurs déjà sur la situation.

Aussi est-il plus intéressant de considérer la phase d'adaptation en Belgique, parce qu'elle y a duré d'avril 1924 à mars 1926. Pendant ces deux années, l'indice de la circulation est resté vers 650; l'indice des prix de gros a oscillé entre 547 et 577, sans tendance déterminée; l'indice des changes sur New York est passé lentement de 399 à 425 (taux de la première stabilisation), ce qui donne un nouveau coefficient changes x prix États-Unis allant de 586 à 663. Apparemment, les prix ne devaient pas monter autant que la circulation, par suite de l'intervention de facteurs tels que l'augmentation de population (le Luxembourg est maintenant inclus dans le territoire monétaire), car ils ne manifestent plus aucune velléité de monter. Ceci est d'autant plus net si l'on considère que les changes ont subi un complément d'adaptation, avec des répercussions directes sur les prix des produits d'importation. La disparité de pouvoir d'achat avec les États-Unis paraît normale d'avril 1924 à mai 1925, en ce sens qu'elle correspond au décalage habituel des années étudiées. Elle s'accroît ensuite sensiblement par suite de la divergence entre les conjonctures belges et américaines. Ici nous sommes dans une phase de dépression légère, pesant sur les prix, tandis que les prix montent aux États-Unis. Si des faits nouveaux n'étaient pas intervenus, pareille situation se serait rectifiée par une hausse des prix en Belgique ou par une baisse du change sur New York; mais ces faits étaient déjà menaçants et pesaient, dans une certaine mesure, sur la situation.

L'histoire des adaptations des changes et des prix à l'inflation de

1919 se clôt en mars 1925 pour la France, en mars 1926 pour la Belgique. Il faut que nous nous justifions maintenant d'avoir poussé l'analyse jusqu'à ces dates, sans faire intervenir les facteurs qui ont alors emporté les monnaies française et belge. Comment ceux-ci n'ont-ils pas eu une action efficace et importante sur les changes plus tôt, alors que les menaces s'accumulaient? La réponse est claire et aisée, si nous nous tenons sur le terrain de la théorie quantitative et de la théorie de la parité des pouvoirs d'achat. Il y a eu, à partir de mars 1925 pour la France, de mars 1926 pour la Belgique, un fait nouveau, l'inflation. Celle-ci n'a évidemment pas été spontanée; elle a trouvé sa source dans des difficultés budgétaires et dans la crise de crédit public qui a empêché la consolidation de la dette à court terme; dès avant que l'inflation ne fût chose faite, la faiblesse des changes a été accentuée par l'évasion des capitaux que provoquaient les craintes générales. Celles-ci ne pouvaient toutefois créer que des hausses peu accentuées de changes tant que les menaces d'inflation n'étaient pas remplacées par une inflation effective.

L'histoire monétaire de la France et de la Belgique confirme donc, dans ses flux et reflux, les lois de tendance qui déterminent les niveaux vers lesquels doivent s'orienter les monnaies, dans des circonstances données. Elle nous incite seulement à mieux considérer la complexité de la vie économique, à reconnaître la longueur des processus d'adaptation, à tenir compte des influences extrinsèques qui viennent modifier les conditions mêmes de l'adaptation.

En raisonnant, ainsi que nous avons été obligés de le faire, par rapport aux niveaux de 1913, un certain degré d'imprécision a nécessairement dû se glisser dans nos chiffres, sinon dans les déductions sur les mouvements. Il va de soi que dans les mouvements de surface et les soubresauts passagers, les influences politiques, les transferts de capitaux, l'état de la balance des comptes jouent un rôle permanent; loin de nous l'idée de le nier en nous reportant aux influences plus profondes qui les dominent. Ces dernières ont d'ailleurs une influence plus précise, plus dosée que ne l'indiquent même les commentaires ci-dessus. C'est ce qui ressort de l'examen comparé des changes français et belges.

Les faits à la base de cette thèse sont les suivants: de 1919 à 1925, les changes belges et français ont subi les mêmes oscillations, tant de détail que d'ensemble: mais tantôt le change français était le meilleur, tantôt c'était le change belge. Dans chaque cas, la différence peut être tracée jusqu'à des différences dans la situation monétaire. Voici, en effet, comment les deux changes se comportent l'un par rapport à l'autre:

(1°) jusqu'à la fin de 1920, le change belge s'améliore par rapport au change français: à Bruxelles le franc français était à 104·74 en janvier 1919 et à 94·78 en décembre 1920;

(2°) de décembre 1921 à août 1923, le change français reprend le dessus, remontant à 124·24 et il maintient sa position jusqu'en mars 1924 (à 121·22);

(3°) de mars 1924 à février 1926, il fléchit de nouveau plus vite, au point qu'il est coté 80·88 à Bruxelles à cette dernière date.

Le premier mouvement, établissant une appréciation relative du franc belge, doit être attribué à une particularité de la situation monétaire de la Belgique sur laquelle nous n'avons pas attiré l'attention jusqu'ici. Nous avons, en effet, raisonné sur les engagements à vue de la *Banque Nationale*. Or, en juillet 1919, lors de l'échange des marks, une bonne partie de la circulation nouvelle fut gardée en réserve par les détenteurs: il y eut 4,681 millions de billets et 2,500 millions de comptes courants à ce moment-là. La presque totalité de cette dernière somme représentait, au point de vue de l'action sur les prix, un potentiel d'inflation plutôt qu'une inflation réalisée; il s'agissait de sommes accumulées et immobilisées pendant la guerre. On ne pouvait les remettre brusquement en circulation effective à un moment où presque tout l'appareil de production était immobilisé. Or, rien de semblable n'existait en France, où l'inflation avait été plus graduelle et où les billets avaient suivi les engagements à vue.

Cette situation, toute momentanée, devait avoir une action sur les changes, en fixant moins haut le plafond qu'ils devaient normalement atteindre en Belgique; elle se maintient jusqu'au cours de 1920, les comptes courants étant ensuite remplacés graduellement par les billets; ils diminuent, en effet, de 1,816 millions en moyenne en 1920, à 1,024 millions en 1921, 712 millions en 1922 et 351 millions en 1923; ceci était un chiffre en rapport avec les besoins des transactions.

Le redressement relatif du franc français de décembre 1920 à août 1923 trouve aisément son explication dans la conjugaison de deux facteurs. D'une part, en France, la circulation est légèrement restreinte en 1921 et maintenue les deux années suivantes. D'autre part, en Belgique, les billets en circulation continuent à augmenter lentement: en 1921 et 1922 par le remplacement des comptes courants, en 1923 grâce à une augmentation de l'escompte commercial en rapport avec la bonne conjoncture. Sans l'intervention d'aucun nouveau facteur d'inflation au sens strict, ni de considérations d'ordre psychologique, le plus grand fléchissement du franc belge s'explique donc.

La troisième phase est celle du maintien du franc belge, pendant que le change français fléchit, la divergence s'accusant surtout à partir du printemps de 1925. La cause ne doit pas en être cherchée bien loin: d'une part existe une stabilité absolue de la circulation fiduciaire, d'autre part, l'inflation s'annonce et se réalise. La solidarité franco-belge des changes a existé sans le moindre doute, mais elle a été telle qu'elle a laissé jouer les lois économiques, jusqu'à permettre des rectifications de peu d'envergure dans les situations respectives des deux pays. Ces lois économiques profondes n'empêcheront d'ailleurs pas qu'au cours de l'hiver 1925–26, l'entraînement du franc français accroisse les évasions de capitaux de Belgique et aggrave une situation des finances publiques qui allait provoquer un second accident. Mais il est un point essentiel pour la doctrine: c'est que les effets monétaires de cette situation ont été contenus jusque dans les derniers moments.

THE PHYSIOCRATIC THEORY OF TAXATION

LUIGI EINAUDI, *University of Torino*

(*The letters indicate the references at the end of the article*)

1. THAT the Physiocrats can rightly pretend to have consciously endeavoured to build for the first time a co-ordinated system of economics is perhaps to-day a commonplace dictum.

There are rivals to the claim to the title of Founders of Economics; but nobody can contest to the Physiocrats the attribute of "conscious" pretenders to the title. The Tableau œconomique may be incomprehensible, but it is certainly an earnest effort to offer a scheme of the endless and ever revolving process of production and consumption. Here ends, however, their rightful claims; because their celebrated special doctrine of the "produit net," ridiculized at once by the Voltairien satire "L'homme aux quarante écus," fell soon flat under the criticism of the economists, who progressively extended the concept of productivism from agriculture to all other species of human activity. The single tax on the net product theory was not reawakened under the guise of the modern theories of the tax on rent or on unearned incomes. Henry George quoted the Physiocrats among his precursors; but it was a lip-homage and did not avail very much to vindicate Physiocratic theories amid the scientific fraternity.

The purpose of the present paper is to point out that full justice is not done to the Physiocrats by the identification of their fundamental tax concept with the single tax on the agricultural net product's tenet. There is in the physiocratic literature, amid much verbose amplification and inexact wording, something which cannot be cursorily identified with the usual textbooks' time-honoured "single tax" and "net product" shibboleths. In vindicating the Physiocrats against the traditional exposure, I will do no more than reproduce their reasonings in what seems to me their true logical order.

2. Taxation, let us firstly assert, *is not an arbitrary act of man*. If taxes are bad, evil consequences follow (*a*). The physiocratic approach to the tax problem is truly scientific. They don't say that tax ought to be such and such by some *a priori* reason. Only they assert that some taxes are capable of producing some effects, commonly called good;

while other taxes will have other results, deemed bad by common consent. And "that is all."

3. *The legal taxpayer is not necessarily the real* de facto *taxpayer.*—If I pay to somebody a 100 francs wage, that is the price of the work done by him, the "necessary" price, viz. the competitive price paid to him in a free market. Should a tax of 100 francs be levied on him, I shall be obliged to raise his wage to 200 francs, in exchange of which I shall receive the same services as formerly I did. Is it not evident, then, that the tax is paid by me and not by the man taxed (*b*)?

4. *A tax not only may be in the end paid by men different from those legally bound to pay it, but it may even increase the income of some members of the community.*—Let us suppose:

"That producers are bound to sell the taxed commodity at whatever price;

"That the taxpayer's demand of the taxed commodity is elastic;

"That the taxpayer's demand is not sufficient to absorb, at the given pre-tax price, all the quantity offered."

It follows:

"That some taxpayers cannot consume the same quantity of the commodity at the old price when a tax on the commodity is directly levied on them;

"That producers will therefore be obliged to reduce the price;

"That the price being the same for all consumers, tax-exempt consumers will benefit by paying a reduced price, which is equivalent to an increase of their incomes" (*c*).

The reasoning is noteworthy for the stress put on the consumer's income, on the different reaction of different classes of income to increases of prices, and on the concept that consumer's income is the final originator of price variations.

5. *Taxes, if put on unsuitable objects, shift until they reach their proper object* (*d*).—For instance, the rate of interest is determined on the market by the conditions of supply and demand. Tax cannot change these conditions and therefore does not change the natural market net rate of interest. Tax, however, put on lenders is shifted on the debtors (*e*). If a tax reduced the rent of houses under the level sufficient to pay expenses and leaving the usual builder's profit, the number of houses built would decrease and old houses will by-and-by deteriorate.

At the end, rents must increase so as to recoup houseowners for the tax paid (*f*).

6. *Taxes cannot hit production costs; if put on costs, a shifting process necessarily takes place.*—The products of the land must firstly maintain the men who till the land or extract the products thereof, who manipulate or transform these products or transport them (*g*). Taxes cannot reduce incomes below their natural level.

7. *The shifting of taxes put on unsuitable objects is a costly process, which causes losses of national income.*—The adepts of the Physiocratic Sect subtly elaborated the distinction between old known taxes, whose effects may be discounted by entrepreneurs, and new taxes which hit entrepreneurs when already engaged in production. The first are obnoxious enough (*h*); but the last are greatly worse (*i*). Saint-Péravy, especially, has analysed the difference between the old and the new tax, which, if unforeseen, he calls *impôt survenant*. Making the hypothesis that the land for each 100 units annually advanced would normally give back to the farmer the same 100 units, plus 10 % interest, plus a surplus of 100 units (the doubling, in a rational system of production, of the advances made is a peculiar tenet of the sect, but is not a necessary theoretical feature of their system), Saint-Péravy observes that an unforeseen tax, put on farmers during the currency of their tenancy, reduces their possibility of making advances, and therefore reduces, by a double amount, the annual flow of products; so that in the end landowners would have been vastly better off if they had voluntarily offered to pay, from the very beginning, the tax wrongly laid on farmers (*k*). Dupont De Nemours enlarges on the same point, describing in an impressive way the evil consequences of taxes wrongly laid and temporarily not shiftable, and concludes with the famous dictum: Indirect (or wrongly laid) taxes make poor the farmers. The poor farmer makes poor the kingdom. The poor kingdom makes poor the king (*l*).

8. *The proper object of the tax is that part of the national dividend which is the necessary remuneration of the political class.*—Physiocrats, by saying that land alone was capable of creating a net product and that tax ought to be laid exclusively on the same net product, did themselves involuntarily great wrong. Let us for a moment drop the "net product" theory and focus our attention on its characteristics. Then, net product appears simply to be the free income of the land-

owning class. The income is free or disposable, because the recipient does not receive it as a compensation of an economic service. The recipient of the free income can live without being obliged to work or to attend to economic occupations. His time is therefore free and can be devoted to public service. His income, not being the necessary remuneration of an absorbing occupation, can be diverted in part to public purposes (*m*). Nor must we put too much stress on the fact that the "free" income goes to the "landowning" class. Physiocrats lived amid a society whose principal source of free income was land. Capitalists, manufacturers and merchants were too busy with their occupations to have much time left for public service. Capitalists and merchants themselves, when rising to affluency, bought land as a first step to nobility, and wishing to qualify their sons to charges in the Courts of Judicature, in the Army, or in other Public Departments. Turgot is at great pain in the effort to distinguish between the man Capitalist and his income. As a man, the capitalist is a member of the free class (*n*); but nothing can be retrenched from his income for taxation purposes, because the interest from capital would fall below the level necessary to promote saving and investment (*o*). Wages of labour and profits of manufacturers and merchants are not free for State service, neither as to incomes or as to recipients of income. Industrial occupations render the recipients unfit for higher tasks. Interest of capital is at half-way; not disposable as income but apt to allow the recipient enough leisure to attend to public service. Full dignity, however, is reached only by the proprietary class, whose income and time are both free for taxation and State service. According to the Grand Duke of Baden, the income of the landowning class must be devoted: (1) to public contributions; (2) to the upkeeping of the land; (3) to the protection of land cultivators against their oppressors; (4) to useful private expenditure apt to give employment to needy labourers; (5) to the discharge of public duty, without salary or without a salary proportioned to the importance of the services done (*p*). The so-called "free" or "disposable" or "gratuitous" income of the landowning class is therefore not free or disposable or gratuitous at all. These are simply words used by physiocrats to connote the underlying fact that there is in the national dividend a part which is not absorbed by the necessary minimum or market remunerations of the "economic" classes, viz. labourers, farmers, manufacturers, merchants, and capitalists. There must be, in the total dividend, a quota which *must* be devoted to public purposes. In the curious dictionary of the physiocrats free, or "disposable," income means simply an income which, being free from the necessity of maintaining the economic classes, must be devoted to socially important purposes: the conservation and increment of the source of national income, viz. land, the protection and defence of common people, the personal service in the interest of the commonwealth, and the defraying of public expenditure. The language of physiocrats was indeed peculiar, and their ideal of a commonwealth governed by a landowning aristocrat class was the outcome of an epoch which was fast disappearing. The duty of the interpreter is not to enlarge on these peculiarities, but to throw light on the substance of their teaching, which seems to be that in an orderly, progressive society the national dividend reaches a maximum when a sufficient quota is devoted to the maintenance of the political governing class.

9. *The "free" part of the national dividend cannot be entirely appropriated by the State.*—If it were, a type of society very different from the physiocrat's ideal would become dominant. Public services, instead of being performed in part by the independent landowning governing class, ought to be the exclusive duty of State servants paid with the yield of taxes. The State, viz. the hierarchy of public servants—in the Physiocrat's language, the Prince and his Court—would be the only master and distributor of the "free" part of the national dividend. Evil social and economic consequences would follow. The State must act through salaried officers, who, not being interested in the property and in the maintenance of the land, would rob it during their temporary tenure of office. Riches could only be got through the favour of the Prince. Corruption would be rampant. Ill-gotten riches would be dilapidated or exported to foreign countries. The capital city would immensely grow at the expense of lesser cities and of the countryside. Agriculturists would be discouraged, nobody taking care of the future of the land. The governing class would fall from independence to servitude. Soldiers and judges would become salaried men, servile as other wage-earning classes. Speculators and jobbers only would thrive amid the universal subservience, thus creating an independent republican invisible State in the bosom of the legal Government. The least foreign effort would suffice to overthrow a State impotent through its very omnipotence.

10. Physiocrats, as is well known, were the theorists of a despotic government. Their despotic Sovereign is, however, only the Agent

through which Natural Laws must be ascertained and promulgated. If the Sovereign does not discover the just laws, the Judge, an independent Judge too, must declare them void and without effect. Therefore the Sovereign must not be the universal master of economic affairs. If tax absorbed the whole of the "free" part of national income, disaster would follow. The Sovereign, instead of simply being the declarator of Natural Laws, to be kept in check by the Judge, would become the fountain of all power and favour, thereby conducing human society to a decadent state (*q*).

11. *Tax, if kept within its rational limits, is not a burden at all. On the contrary, is a condition toward the maximization of the national dividend.*—It was Mercier de la Rivière who stated, better than any other member of the sect, the general physiocratic feeling about the true nature of the tax. If the general chain of reasoning thus far laid down is correct, viz. if tax is not the arbitrary act of man, and put on unsuitable objects, is shifted until it reaches its proper object; if that object is that part of the national dividend which is the necessary remuneration of the political class, and if the State can appropriate directly only a portion of such remuneration; then it follows logically that taxes are not a burden at all. "I regret giving to public revenue the name of tax, because tax is always a bad announcement of a crushing burden, of which everybody wishes to be exempt. Public revenue, on the contrary, is not frightful at all. If we go back to its origin, we see that tax is born out of its very utility" (*r*). Taxes are useful to farmers because it is indifferent for them to pay the rent wholly to landowners or partly to these and partly to the State, and they get in return protection from the Sovereign. Landowners are not burdened, because their rent would have been vastly lower if public protection did not make possible investments and betterments in the land cultivation. Taxation is useful to wage-earners, because without it no wage-paying enterprise could be started (*s*).

12. The only modification that needs be introduced in the physiocratic tax theory is a formal one. They presumed to have discovered in the rent of land the true object of taxation. Theirs was, indeed, only an historical, contingent identification. The economists who followed them identified, in their turn, the physiocratic with the ricardian rent of land, and easily concluded that it was not a proper nor a sufficient object of taxation. There is not, however, the slightest

basis for such an identification. The Ricardian rent is a differential quantity, the outcome of the equal market price of goods produced at different costs. We may stretch it so as to include other differential or even monopoly incomes, but we cannot get rid of the idea that such differential or monopoly incomes are the result or fruit or consequence of some peculiar circumstances or qualities or characteristics of the land or other privileged sources of income. It may be argued that such incomes can be conveniently appropriated by the State; that they are the least inconvenient or, may be, the best object of taxation; we never get rid of the idea that even the best-laid tax is a burden on somebody. The true physiocratic contribution to the theory of taxation was fundamentally different. They argued that the national dividend included an unknown quantity—let us forget for a moment their shibboleths about the net product—which was the remuneration of the political class. That unknown quantity is not the property of farmers, wage-earners, manufacturers, capitalists, etc., because it is the fruit of the work done by the political class, acting either individually or collectively, through the agency of the State. The devolution, through the device of taxation or otherwise, of the unknown quantity to the political class and to the State is not a burden on the taxpayers, any more than the devolution of wages to wage-earners or of interest to capitalists or of profit to entrepreneurs is a burden on other classes. It is firstly a problem of producing and then of distributing the whole national dividend to all the interested parties. It is not correct, from the point of view of the history of economic theory, to make a fuss about the obsolescent features of the physiocratic theory. We may not accept their identification of the "unknown quantity" with the so-called "net product," and of the political class with the remnant of the old feudal proprietary class in the eighteenth-century France. We are bound to take account of the inner true signification of their creed. I don't say that physiocrats were the first and the only economists who formulated correctly the taxation problem. It cannot be gainsaid that theirs was the first conscious endeavour to formulate correctly that problem as a problem not of a burden laid on individual producer's shoulders for the sake of keeping the consumptive governmental machine going, but as a problem of distribution between productive agents—the State being counted among them according to his proper nature—of a total national dividend produced by the same agents. Hints may be traced here and there to older writers; the full conscious formulation of the principle is first found in the physiocratic literature.

NOTES

(*a*) "Il ne dépend pas des hommes d'asseoir l'Impôt selon leur caprice. . . . Personne ne conteste aux ignorans le pouvoir physique de tomber dans de grandes erreurs; mais les loix naturelles les soumettent alors à des punitions très séveres, inévitablement attachées à ces erreurs, et c'est tout ce que l'on veut dire ici."—Dupont De Nemours, *De l'origine et des progrès d'une science nouvelle*, 1768, p. 40; ed. Paris, 1910, p. 20.

(*b*) "J'ai à mes gages un homme à qui je donne 100 francs, parce que 100 francs sont le prix nécessaire de sa main-d'œuvre, le prix fixé par une concurrence établie sur une grande liberté: ces 100 francs sont à lui; il les reçoit de moi en échange d'une valeur de 100 francs en travaux: établissez sur lui un impôt de la même somme; il ne pourra plus vivre, à moins que je ne lui donne 200 francs. Cependant pour ces 200 francs, je ne recevrai de lui que les mêmes travaux, que la même valeur qu'il me donnoit auparavant; il y aura donc la moitié de cette somme que je lui donnerai sans qu'il l'achete, et dont il se servira pour payer l'impôt: d'après cela n'est-il pas sensible que c'est sur moi que l'impôt retombe, et non pas sur lui? Tout impôt acquitté par un salarié dont les salaires augmentent en proportion, n'est certainement point supporté par le salarié; cet impôt est à la charge de ceux qui, par l'augmentation de ses salaires, lui fournissent gratuitement les moyens de payer."—Mercier de la Rivière, *L'Ordre naturel et essentiel des sociétés politiques*, 1767, ii, pp. 112–13.

(*c*) "A l'égard d'un impôt sur la vente des productions cueillies dans l'intérieur de la nation, et dont le commerce reste libre cependant entre le vendeur et l'acheteur, comme il n'est pas possible d'y assujettir toute une même espece de productions, il en résulte un inconvénient singulier: cette marchandise diminue de prix non seulement pour les consommateurs qui ne peuvent se la procurer qu'en payant des droits; mais encore pour tous les autres qui n'ont point de droits à payer, en supposant néanmoins que cette production ait besoin de cette première classe de consommateurs. Chaque lieu où se cueille une production est une sorte de marché public formé par la concurrence des vendeurs: là, chacun achete au même prix, toutes choses égales d'ailleurs; et la concurrence des acheteurs établit un prix courant qui devient une loi commune: que vous ayez des droits à payer après l'achat, ou que vous n'en ayez point, vous n'achetez ni plus ni à meilleur marché. Ainsi dès que parmi les consommateurs dont le débit d'une production a nécessairement besoin, il s'en trouve qui sont chargés de payer des droits, ils sont forcés de diminuer le premier prix d'achat; et cette diminution fait tomber également le prix courant de cette production pour tous les autres acheteurs. Je dis que les consommateurs sujets aux droits sont forcés de diminuer le premier prix d'achat, et cela est facile à concevoir: l'établissement de ces droits n'augmente point, dans ces consommateurs, les moyens qu'ils avoient pour dépenser; il faut donc qu'ils achetent cette production moins cher, ou qu'ils en achetent une moindre quantité, la surabondance de cette production en fait *nécessairement* diminuer la valeur. Impossible donc d'empêcher que le prix de cette production ne diminue et ne diminue pour tous les acheteurs indistinctement." —Mercier de la Rivière, *L'Ordre naturel et essentiel des sociétés politiques*, 1767, ii, pp. 208–10.

(*d*) "Quand on veut, disait un grand ministre, tirer les choses de leur centre et de l'élément qui leur est propre, il faut de la force, il faut du travail; mais elles se replacent d'elles-mêmes."—MIRABEAU, *Théorie de l'impôt*, 1760, p. 359.

(*e*) "La proportion entre les prêteurs et les emprunteurs est la seule cause décisive du prix de l'argent ou de son intérêt. La loi ne pouvant pas changer la raison de ce concours général, le taux des contractants se rendra toujours indépendent de son autorité. L'emprunteur ne doit pas mieux réussir à forcer le prêteur de subir la diminution de l'impôt sur son intérêt, que de prêter à un fur plus bas que celui du concours général. On ne peut pas plus le présumer maître de la première condition que de la séconde. Ainsi le fur naturel de l'argent prenant toujours l'ascendant sur le fur légal qui s'efforce en vain de le saisir et de le fixer, la reprise de l'impôt sur les rentes est calculée par le prêteur, et exigée par lui en sus du fur naturel; ce qui le fait renchérir et retomber sur l'emprunteur qui s'abuse, s'il prétend le gagner."—SAINT-PÉRAVY, *Mémoire sur les effets de l'impôt indirect sur le revenu des propriétaires des bien-fonds*, 1768, p. 66.

(*f*) "Le terrein sur lequel elles (les maisons) sont construites; les matériaux qui les composent, et la main-d'œuvre qu'a coûté leur arrangement, représentent le capital qui forme leur valeur. Cette manière de l'employer ne peut être censée avoir été adoptée par personne, que dans la certitude d'en retirer un profit combiné avec celui de ces autres emplois, et en raison de leur solidité. Rien ne doit pouvoir diminuer cette proportion. Ce n'est point l'impôt qui doit réussir à l'affaiblir; il est incontestable qui il doit être aux dépens du locataire en renchérissement des loyers. En effet, supposez un instant qu'il soit retenu aux possesseurs des maisons, en déduction des baux; alors l'emploi de l'argent en bâtisse deviendroit moins favorable que tous ceux dont il est susceptible dans les mains de l'industrie; aussi-tôt on cesseroit de construire de nouvelles maisons; on refuseroit même de rebâtir celles que le feu et la vétusté détruiroient; conséquemment le nombre en diminueroit, jusqu'à ce que la demande en concurrence des locataires, eût élevé le prix des loyers au pair de l'indemnité de l'impôt en faveur des possesseurs de maisons."—SAINT-PÉRAVY, pp. 68–69.

(*g*) "1° A la subsistance de ceux qui les font naître. 2° A la subsistance de ceux qui les façonnent. 3° A celle de ceux qui les voiturent; ce qui comprend Agriculture, Industrie et Commerce. Toutes ces parties sont de droit franches, libres et immunes."—MIRABEAU, p. 424.

(*h*) "Si l'on établissait des impositions sur les personnes, sur les marchandises, sur les dépenses, sur les consommations; la perception de ces impositions serait fort couteuse; leur existence gênerait la liberté des travaux humains, et augmenterait nécessairement les frais de Commerce et de culture.

"Cette augmentation de frais de commerce et de culture, ces taxes dispendieuses entre la production et la consommation, n'augmenteraient la richesse d'aucun acheteur-consommateur, et ne pourraient faire dépenser à qui que ce fut plus que son revenu.

"Elles forceraient donc les acheteurs à mésoffrir sur les denrées et les matières premières, en raison de la taxe, et de la perception couteuse de la taxe, et de l'accroissement de frais intermédiaires de commerce et de fabrication que la taxe et sa perception occasionneraient.

"Elles feraient donc baisser nécessairement d'autant le prix de toutes les ventes de la première main.

"Les cultivateurs qui font ces ventes se trouveraient donc en deficit dans leur recette, de toute la diminution du prix de leurs denrées et matieres premières.

"Ils seraient donc forcés d'abandonner la culture des terreins mauvais ou médiocres, qui avant la diminution du prix des productions, ne rendaient que peu ou rien par de-là le remboursement des frais de leur exploitation, et qui par cette diminution de la valeur des récoltes ne pourraient plus rembourser ces frais nécessaires pour les cultiver. De-là naîtrait une première et notable diminution dans la masse totale des subsistances, dans l'aisance du Peuple, et bientôt dans la population.

"Les cultivateurs seraient forcés en outre, de retrancher, ou sur le revenu des propriétaires, ou sur les dépenses de leur culture, une somme égale au deficit qu'ils éprouveraient dans leur recette."—DUPONT DE NEMOURS, 1768, pp. 42–43; 1910, pp. 21–22.

(*i*) "Mais si l'imposition augmente pendant le cours du bail du fermier, elle enleve les avances d'exploitation avec un progrès très rapide; elle éteint le produit total qui doit fournir le revenu, restituer les reprises du fermier, payer les salaires aus ouvriers employés à la culture, et entretenir les engrais de la terre; alors les biens se détériorent et tombent en non valeur. Ainsi l'imposition qui enleve les richesses d'exploitation, est une dévastation qui ruine les fermiers, qui anéantit les revenus des propriétaires et du souverain et qui éteint la rétribution dont subsistent les autres classes d'hommes."—MIRABEAU, pp. 477–78.

(*k*) "Pour peu qu'on examine le sort des fermiers, qui, pressés par la création d'un nouvel Impôt, n'ont d'autres ressources pour y satisfaire que leurs reprises composées de leurs avances annuelles avec leurs intérêts; si le genre de leur culture n'est fondé que sur des avances annuelles, il n'est pas douteux qu'ils commenceront pour sacrifier ces intérêts pour ne point entamer leurs avances; mais au moindre accident dans les récoltes, ne trouvant plus dans ses intérêts les secours qu'ils devoient leur ménager, et qui ne leur avoient été accordés que pour ces moments de crise, ils sont forcés d'entamer leurs avances elles-mêmes. Alors la réproduction suivante sera diminuée en raison de deux cents dix pour cent de ce qu'ils auront commencé à en sacrifier. Avec une récolte aussi affaiblie, il ne leur est plus possible de se remettre au pair en reportant la dépense du nouvel impôt sur les seuls intérêts des avances pour l'année suivante. Le vuide de la récolte qu'ils supportent seuls par le droit injuste conservé aux propriétaires de refuser de leur en tenir compte pendant le cours des baux, les réduit à ne pouvoir plus payer l'impôt qu'en reprenant de nouveau sur leurs avances: elles seront diminuées chaque année, non-seulement de la reprise répétée de l'impôt; mais encore du vuide de la reproduction qui sera augmenté progressivement jusqu'au moment de l'échéance des baux; alors presque ruinés ils ne pourront plus former d'engagements avec les propriétaires, que conséquemment à la foible culture que l'épuisement de leurs richesses d'exploitation leur permettra de soutenir, et après leur avoir précompté la charge du nouvel impôt."—SAINT-PÉRAVY, pp. 161–63.

(*l*) "Si les baux qui engageraient les cultivateurs vis-à-vis des propriétaires, avaient plusieurs années à courir, et si les premiers ne pouvaient les résilier; la dégradation deviendrait progressive, et d'autant plus rapide que le cultivateur serait forcé de payer tous les ans le même loyer et la même imposition, sur une récolte affaiblie tous les ans par l'effet de ces payemens, auxquels il ne pourrait satisfaire qu'en retranchant tous les ans sur les dépenses de sa culture.

"Cette dégradation, si redoutable à la population, retomberait nécessairement à la fin sur les propriétaires fonciers et sur le Souverain, soit par la ruine des entrepreneurs de culture, soit par l'expiration de leurs baux.

"Ceux des entrepreneurs de culture auxquels il resterait encore le moyen de renouveller leurs baux, instruits par l'expérience, stipuleraient de maniere à se dédommager des pertes qu'ils auraient essuyées, ou du moins à ne pas s'exposer à en faire de pareilles à l'avenir. Leurs facultés affaiblies ne leur permettant pas de conduire leur exploitation aussi avantageusement que par le passé, ils ne s'engageraient qu'en raison de l'impuissance où les aurait réduits la perte d'une partie de leurs richesses, de la diminution arrivée dans le prix des ventes de la premiere main, et de la surcharge de l'imposition indirecte et des frais de sa perception.

"L'appauvrissement de ces entrepreneurs de culture, et la ruine des autres auxquel il ne resterait plus la faculté de faire les avances des frais de l'exploitation, détournerait les hommes riches de se livrer à une profession qui ne leur présenterai que la perspective de la perte de leur fortune. La culture de la plus grande partie des terres resterait abandonnées à des malheureux manouvriers sans moyens, auxquels les propriétaires fonciers seraient obligés de fournir la subsistance. Alors, impossibilité de se procurer des animaux vigoureux pour exécuter les travaux avec force et avec célérité, et des bestiaux en assez grande quantité pour fumer les terres; disette des engrais nécessaires; insuffisance des réparations et de l'entretien indispensable des bâtimens, des fossés, etc.; extinction presque entiere des récoltes, des subsistances, de la population, du produit net qui constitue la richesse des propriétaires fonciers, du revenu public qui ne peut être qu'une part de ce produit net, de la puissance du Souverain qui est fondée sur le revenu public.

"*Impositions indirectes; Pauvres Paysans. Pauvres Paysans; Pauvre Royaume. Pauvre Royaume; Pauvre Souverain.*"—DUPONT DE NEMOURS, 1768, pp. 46-48; 1910, pp. 22-23.

(*m*) "Produit net, qui est la part qui revient au propriétaire, et qui fait qu'il peut vivre sans travailler et que sa personne devient par là disponible."—CARL FRIEDRICH GRANDUC DE BADE, *Abrégé des principes de l'économie politique*, Carlsrouh, 1786, p. 23.

"La part du proprietaire ou le revenu avec lequel celui-ci peut vivre sans travail, et qu'il port où il veut. . . . La classe des propriétaire [est] la seule qui n'étant point attachée par le besoin de la subsistance à un travail particulier, puisse être employée aux besoins généraux de la société, comme la guerre et l'administration de la justice, soit par un service personnel, soit par le paiement d'une partie de ses revenus avec laquelle l'État ou la société soudoie des hommes pour remplir ces fonctions. Le nom qui lui convient le mieux par cette raison, est celui de classe disponible."—TURGOT, *Réflexions sur la formation et la distribution des richesses* in *Œuvres*, 1808, v, pp. 15-16).

(*n*) "Le capitaliste prêteur d'argent appartient, quant'à sa personne, à la classe disponible" (Title of Chapter 93 of *Réflexions*, v, p. 119).

(*o*) "Cette rétribution doit . . . être sacrée et jouir d'une immunité entière, parce qu'elle est le prix d'une avance faite à l'entreprise, sans laquelle l'entreprise ne pourrait subsister. Y toucher, ce serait augmenter le prix des avances de toutes les entreprises, et par conséquent diminuer les entreprises ellesmêmes, s'est-à-dire, la culture, l'industrie et le commerce."—*Réflexions*, v, p. 122.

(*p*) See in the *Abregé* of the Grandduke of Baden (p. 33) the following table:

LE DROIT

que la classe propriétaire a de jouir du revenu, suppose de même

DES DEVOIRS

qui sont:

1° L'acquit fidele de ses charges.	2° La protection de tous les droits de ceux qui vivifient la propriété fonciere.	3° Le service gratuit envers la société.	4° La juste distribution de ses dépenses, d'ou dépendent le droit et le patrimoine d'une grande portion de la société.
Qui consistent à contribuer aux charges publiques, et à entretenir les avances foncieres.	C'est d'être juste envers le cultivateur, et de le protéger contre les erreurs publiques et les injustices privées, par le recours à l'autorité, et la connoissance des droits et des devoirs sociaux.	C'est de vaquer à quelques unes des parties qui rentrent dans les trois points qui renferment les besoins sociaux; et cela, sans exiger un salaire proportionné au besoin absolu de sa subsistance.	Il y a une juste direction des dépenses, et une autre qui est nuisible, et par conséquent injuste.

(*q*) On the fatal connexion between economic State omnipotence, political despotism and social decadence, physiocrats wrote eloquent pages, of which the following, due to the Marquess of Mirabeau (*Théorie de l'impôt*, 1760, pp. 167–71, and again in the *résumé*, pp. 449–51), is perhaps the best:

"Si le Prince, dit-on, enlevoit par un impôt exorbitant tous les revenus, quel mal en arriveroit-il? Les revenus ne rentreroient-ils pas annuellement par ses dépenses dans la circulation, et ne feroient-ils pas vivre de la sorte toutes les classes d'usufruitiers, de gagistes, d'artisans, et de travailleurs de tout genre?

"Il en arriveroit, 1° Qu'il n'y auroit plus qu'un centre de distribution, et qu'une ville dans le Royaume.

"2° Qu'on ne seroit occupé qu'à obtenir des places et des emplois à la Cour, qu'à solliciter des augmentations de gages et des pensions, qu'à participer aux libéralités du Prince, qu'à eviter le travail, qu'à parvenir à la fortune par toutes les voyes de collusion que la cupidité peut suggérer, qu'à multiplier les abus dans l'ordre de la distribution et des dépenses.

"3° Comme l'homme quelconque n'est qu'un, et ne sçauroit régir avec indépendence que ce qu'il voit et touche, le propriétaire universel seroit dépendant pour toute la portion de sa propriété qui seroit hors de sa portée. Le Gouvernement des biens seroit donc livré à l'Agence, c'est-à-dire, à des particuliers à qui la propriété seroit étrangere et qui ne penseroient qu'à leur propre fortune, et à celle de leurs coopérateurs dans l'œuvre d'iniquité.

"4° Tout agent qui songe à son propre fait, est forcé à conniver aux

déprédations des autres, d'ou s'ensuit que tout à la Cour dégénereroit en brigandage.

"5° Que ceux que le Souverain enrichiroit, précipiteroient les dépenses du côté du luxe de décoration et de fantaisie, attendu que le bon usage des richesses mal acquises est un phènomene ici bas, attendu encore que pour sentir le prix de la richesse, il faut l'avoir péniblement acquise.

"6° Le petit nombre même d'entre ces privilégiés, qui voudroient acquerir des biens et assurer des revenus à leur posterité, porteroient leur richesses chez l'étranger, sçachant bien que rien n'est assuré dans le pays, ou chercheroient à se faire des fonds sur l'Etat, fonds d'une nature sourde et fragile, mais rongeurs des gains et des facultés d'autrui, et par là même, ressorts actif de la révolution.

"7° La culture livrée à des manœuvres précaires, et par tant de voies accumulées privée des richesses, ne feroit que languir, les revenus diminueroient chaque jour, et s'anéantiroient enfin.

"8° Les Courtisans et les Favoris profiteroient de l'enfance et de la caducité des Souverains pour s'emparer des revenus du fisc, et pour acquerir une puissance dangereuse à l'Etat et au Souverain.

"9° La noblesse, sans patrie et sans possessions, seroit réduite à un service militaire purement mercénaire, tandis que la solde equitable et l'éntretien nécessaire seroient refusés au soldat.

"10° La magistrature, n'ayant plus de propriétés, la Justice seroit vénale, et les loix même seroient un mal; car il ne faut plus de loix, où il n'y a plus de propriété, et le vain simulacre de celles qui demeureroient encore, ne seroit plus qu'un spectre favorable à l'injustice: je le répete, il ne faudroit plus de loix, et sans loix que devient la société et l'Etat?

"11° Il n'y auroit que les commerçans qui, indépendemment d'une constitution d'Etat si désunie, si bouleversée et si passagere, pourroient assembler des richesses, et se former par leurs correspondances avec les autres nations, des possessions où des propriétés assurées. De là naitroit dans la Nation, un Etat républicain et nécessaire, qui éluderait la domination absurde et désordonnée.

"12° L'oppression enfin ayant appris au peuple le secret de Diogène, de jeter sa tasse et de boire dans le creux de sa main, il s'abandonneroit à la paresse et à une orgueilleuse indigence, et vivroit dans l'oisiveté et dans l'indépendance. Le tableau de l'Etat et de la société ne conserveroit plus que le cadre facile à rompre par le moindre effort étranger. . . . En un mot, un Etat où le tribut enleveroit le revenu du territoire, seroit un Etat en pleine anarchie, sans consistance et sans durée."

(*r*) "C'est à regret que je donne au revenu public le nom d'impôt: ce terme est toujours pris en mauvaise part; il annonce une charge dure à porter, et dont chacun voudroit être exempt; le revenu public au contraire . . ., n'a rien d'affligéant; en remontant à son institution, on voit qu'elle est le fruit de son utilité."—MERCIER DE LA RIVIÈRE, *L'ordre naturel et essentiel des sociétés politiques*, 1767, ii, p. 40.

For a modern formulation of the non-burden tax theory, see my *Osservazioni critiche intorno alla teoria dell'ammortamento dell'imposta e teoria delle variazioni nei redditi e nei valori capitali susseguenti all'imposta* in *Atti della Reale Accademia delle scienze di Torino*, vol. 54, 1918–19, and *Contributo alla ricerca dell, "ottima imposta"* in *Annali di economia dell'Università commerciale Bocconi*, Milano, 1929.

(*s*) "Par cette forme les cultivateurs payent selon leurs engagemens libres et volontaires la valeur du produit net à ceux qui en sont propriétaires. Il leur est très-avantageux qu'une partie de ce produit net passe entre les mains de l'autorité Souveraine; puisque c'est l'unique moyen de mettre cette autorité à portée de protéger leurs droits de propriété. Et cela ne leur est nullement à charge; puisqu'ils n'ont aucun droit de propriété sur le produit net, qu'ils sont contraints par la concurrence d'en tenir compte en entier à qui il appartient, et que peu leur importe qu'une partie de ce produit net s'appelle impôt, tandis que l'autre s'appelle fermage, pourvu qu'on n'exige rien d'eux au-delà du produit net, et que leurs reprises soient toujours franches, intactes et assurées.

"Par cette forme les propriétaires fonciers qui paraissent payer l'impôt sur leurs revenus, le payent au contraire sur une augmentation de richesses disponibles ou de produit net qui n'existerait pas sans l'établissement de l'impôt; puisque c'est la sûreté que l'impôt donne à la propriété, qui a seule pû soutenir et favoriser les entreprises et les travaux, par lesquels la culture est parvenue au point de faire naître un produit net tant soit peu considérable.

"Par cette forme l'impôt, auquel appartient une part proportionnelle du produit net, est donc très-avantageux aux propriétaires fonciers; puisqu'il étend leurs richesses et les jouissances qu'ils peuvent se procurer. Il forme une espece de propriété commune inaliénable; il n'entre dans aucun des contrats que les propriétaires fonciers passent ensemble; lorsqu'ils achetent et vendent des terres, ils n'achetent ni ne vendent l'impôt, ils ne disposent que de la portion du produit qui leur appartient, l'impôt prélevé. Ainsi l'existence de cet impôt n'est pas plus à charge à aucun des propriétaires fonciers que le droit qu'ont les autres propriétaires sur les domaines qui limitent le sien.

"Par cette forme l'impôt est très-avantageux à la classe des hommes qui ne subsiste que de salaires; puisqu'il leur procure la sûreté et la jouissance de toute l'étendue de leurs droits de propriété personnelle et mobiliaire. Et il ne leur est nullement à charge; puisque loin de retrancher rien de la somme des salaires, ni de la facilité de les obtenir, il en augmente la masse par l'augmentation des richesses, qui résulte de l'assurance complette de tous les droits de propriété.

"Par cette forme la liberté des travaux humains est la plus grande qu'il soit possible; la concurrence, entre tous ceux qui font exécuter, et entre tous ceux qui exécutent ces travaux, la plus étendue qu'il soit possible; l'état des propriétaires fonciers le meilleur qu'il soit possible; la multiplication des richesses, et du produit net, la plus rapide qu'il soit possible; et par conséquent le revenu public toujours proportionné au produit net, sans cesse augmentant, le plus considérable qu'il soit possible."—DUPONT DE NEMOURS, 1768, pp. 57–60; 1910, pp. 27–28.

DER KOSTENBEGRIFF

KAREL ENGLIŠ, *Masarykova Universita, Brünn*

A. DER KOSTENBEGRIFF ALS DENKINSTRUMENT DES WIRTSCHAFTSSUBJEKTES

DER Kostenbegriff ist wie jeder andere wirtschaftliche Begriff ein *Denkinstrument*, vor allem des *wirtschaftenden Menschen* und dann der die Wirtschaft desselben erkennenden *Wissenschaft*. Wie dieses Denkinstrument dem wirtschaftenden *Menschen* dient, erkennen wir aus den *Redenweisen*, aus welchen ersichtlich wird, was alles unter Kosten im Sprachgebrauch verstanden wird. Der wirtschaftende Mensch sagt: Das Pferd oder die Freude, die mir das Pferd bereitet, hat mich viel *Geld* (1,000 Kronen) gekostet; das Pferd hat mich eine Woche *Arbeit* gekostet, wodurch ich die 1,000 Kronen verdiente; das Pferd hat mich viel *Arbeitsmühe* gekostet, weil ich die Arbeit neben der normalen Arbeitspflicht versehen musste und müde war; das Pferd hat mich die *Reise nach Italien* und die *Freude* dieser Reise gekostet, für welche ich ursprünglich das Geld vorbereitet hatte, bevor sich mir der Gelegenheitskauf des Pferdes bot. Das sind die Kosten des Käufers. Der Verkäufer wird ausserdem sagen, dass ihn selbst das Pferd nahezu schon mehr als 1,000 *Kronen* kostet, wenn er die *Arbeit* und *Arbeitsmühe*, die *Zeit* der Pflege, den vom Pferd in den teueren Stallungen in Anspruch genommenen *Raum*, und die *Güter* bewertet, die ihn die Heranziehung des Pferdes bereits gekostet hat. ***Geld und Güter*, *Arbeit und Arbeitsmühe*, *Zeit und Raum*, *Bedürfnisse und ihr Nutzen oder Wert*** (Freude), ***alles wird als Kosten vom wirtschaftenden Menschen bezeichnet.*** "Sind" Kosten alles das (Gut, Nutzen etz.), was der Sprachgebrauch als Kosten bezeichnet? Wir haben das Wort "sind" in Anführungszeichen gegeben, um dadurch aufmerksam zu machen, dass diese Fragestellung zwar die übliche (was *sind* Kosten), aber nicht die richtige ist, denn es leuchtet schon ein, dass alles Erdenkliche zu Kosten werden bezw. als Kosten betrachtet werden kann, und wir suchen daher nicht, was Kosten *sind*, sondern in *welcher Art der Betrachtung* Kosten in Erscheinung treten. Ähnlich fragen wir nicht, was ein Gut *ist*, weil alles mögliche als Gut gedacht werden kann, sondern bei welcher Art der Betrachtung Objekte als Güter erscheinen (wenn sie als gewollt, als Mittel zu Zwecken und daher als nützlich betrachtet werden). Und ganz analog müssen wir die Fragestellung auch beim Kostenbegriff einrichten. *Wie denkt der Wirtschafter und wie muss ich denken, um zu dem Kostenbegriff zu gelangen?*

In dieser Hinsicht ist vor allem wichtig zu konstatieren, dass die Kosten eine *Beziehung*, eine *Relation* zwischen dem, was gekostet hat, und dem, was die Kosten ausmacht, zum Ausdruck bringen. Kosten ohne Beziehung zu Etwas, was durch die Kosten erkauft werden soll, sind undenkbar, wie ein kinderloser Vater undenkbar ist; es ist ein *Relativitätsbegriff*. Diese Beziehung ist eine *teleologische*, denn die Kosten werden zweckbewusst, in Verfolgung eines Zweckes unternommen; sie werden gewollt, weil ein anderes gewollt wird. In dieser Weise wird ein Vorgang, ein Thun, ein Handeln erklärt; der *Kostenvorgang ist eine Handlung*, die eines Erfolges halber unternommen wird. *Der Kostenbegriff hat Handlungen zu erklären* und zwar in einer bestimmten Art, *nicht kausal, sondern teleologisch*, d.h. in ihrer wechselseitigen Abhängigkeit, in ihrer Ordnung, wie sie gewählt und vorgezogen werden. Es ist nun zu untersuchen, *in welcher Art* der Kostenbegriff zur Erklärung der Handlungen beiträgt.

Diese *Ordnung* in dem verwickelten Komplex der *Handlungen*, die eine Wirtschaft ausmachen, zu entdecken, ist die Aufgabe der *Theorie der Einzelwirtschaft* als jener Einheit, in welcher sich die Fürsorge der einzelnen Menschen und des ganzen Volkes um die Lebenserhaltung und Lebensförderung abspielt. Am einfachsten lässt sich diese Ordnung an die Mittelreihen anknüpfen, weil es sich in der Wirtschaft stets um die *Mittelbeschaffung und Mittelverwendung* handelt. Die Handlungen der Wirtschaft sind Mittelbeschaffung und Mittelverwendung. Die Ordnung der Wirtschaft enthält die folgenden Fragen: (*a*) die Ordnung der *Mittelverwendung* bei gegebenen Mitteln und bei verschiedenen Verwendungsmöglichkeiten, (*b*) die Ordnung der *Beschaffung eines Mittels* bei verschiedenen Beschaffungsmöglichkeiten und der *Beschaffung verschiedener Mittel*, (*c*) die *Grenze der Mittelbeschaffung und Mittelverwendung* (Knappheit der Mittel). Die teleologische Theorie schöpft die Erklärung dieser Ordnung in der Wirtschaft *aus dem die Wirtschaft beherrschenden Zweck*; sie sieht also eine *sachliche* Ordnung, keine *psychische*. Auch die *subjektive Wohlfahrt*, ist ein gedachter Zweck als Ordnungszentrum der Individualwirtschaft. Jede Wirtschaft muss einen regelnden Zweck haben. Auch die *Staatswirtschaft* hat einen solchen Zweck, das *Ideal eines gesunden, gebildeten und gesitteten Volkes*, das objektive Wohl.

Im ersten Falle ist das *Individuum Subjekt* der Individualwirtschaft und ordnet dieselbe nach seinem *subjektiven Wohl*, im zweiten Falle ist der Mensch und das Volk *Objekt* der staatlichen Fürsorge, deren Zweck daher nur ein gewisses Fürsorgeideal sein kann, das *objektive Wohl*. In *jeder* Wirtschaft ergeben sich aus dem Wirtschaftszweck *Bedürfnisse*, die dem Zweck entsprechend subjektiv oder objektiv sind, also das Wollen von Mitteln, Vorgängen und Objekten (Gütern), die im Hinblick auf den Zweck gewollt und nützlich sind, weil man sie für fähig hält, den Zweck zu verwirklichen (eine zweckmässige Veränderung — Nutzen — herbeizuführen). Somit kann auch die *Nützlichkeit* (als Eigenschaft) und der *Nutzen* (als Veränderung und Zweckverwirklichung) subjektiv oder objektiv sein. Gewisse Vorgänge (und Gegenstände) sind fähig, eine *Zweckeinbusse* (*Schaden*) herbeizuführen und sind subjektiv oder objektiv *schädlich*. Es kann sein, dass gewisse Vorgänge gleichzeitig nützlich und schädlich sind, sodass dieser Vorgang in einer Beziehung eine Zweckverwirklichung (Nutzen), in anderer Beziehung aber eine Zweckeinbusse (Schaden) herbeiführt. In diesem Falle wird der Vorgang nur des vorwiegenden Nutzens halber unternommen, der Nutzenüberschuss ist *Ertrag*. Der regelmässige Fall ist der, dass die *Mittelbeschaffung mit Zweckeinbusse* (*Schaden*) *verbunden ist* und dieser Schaden jenem *Nutzen* gegenübersteht, welcher *aus der Mittelverwenudng* erwächst, und das *Wirtschaften darin besteht*, *den maximalen Nutzen* (*bei der Mittelverwendung*) *durch minimalen Schaden* (*bei der Mittelbeschaffung*) *zu erreichen*. Das ist die Handlungsweise unter jedem Maximalzweck, daher auch unter jenen Maximalzwecken, welche die Wirtschaften beherrschen; hier sind es schon *bestimmte* Zwecke (Zwecke mit Inhalt), aus welchen sich eine *bestimmte Ordnung* ergibt. Aus dem Menschenideal als Zweck ergibt sich eine andere Ordnung der Mittelbeschaffung und Mittelverwendung als aus der subjektiven Wohlfahrt als Zweck. Die Ordnung der Mittelbeschaffung und Mittelverwendung, die dem Maximalzweck entspricht, lässt sich logisch ableiten, ist keine psychische Tatsache. Aus dieser Ordnung ergibt sich auch die Grenze beider. Wir verweisen in Näheren auf unsere Ausführungen in der *Begründung der Teleologie als Form des empirischen Erkennens*, Brünn, 1930, und kehren nun zu unserem eigentlichen Problem zurück; wir werden uns dabei auf die Beschaffung und Verwendung einer Mittelreihe z.B. der Geldreihe beschränken. Es ergibt sich aus dem Vorhergesagten das folgende Schema:

MITTELVERWENDUNG

Arten der Verwendung (Käufe, Bedürfnisbefriedigung, Zweckerreichung)

$V_1 \quad V_2 \quad V_3 \quad \ldots$

Nutzen aus der Verwendung

$N_1 \quad N_2 \quad N_3 \quad \ldots$

Geldmitteleinheiten 1 2 3 . . . . n

MITTELBESCHAFFUNG

Arten der Beschaffung (Arbeitsarten)

$B_1 \quad B_2 \quad B_3 \quad \ldots$

Schaden der Beschaffung

$S_1 \quad S_2 \quad S_3 \quad \ldots$

Welche Redeweisen werden nun durch den Kostenbegriff gedeckt? Es sind die folgenden:

1. Kosten in der Geldmittelverwendung, wobei man als Kosten bezeichnet

(*a*) das Mittel (das Pferd hat 1,000 Kč gekostet) oder.

(*b*) die entgangene Verwendung bezw. ihren Nutzen (das Pferd hat mich die Reise nach Italien, die Freude dieser Reise gekostet).

In beiden Fällen fragt man nach den Kosten einer Mittelverwendung (Geldmittelverwendung).

2. Kosten in der Geldmittelbeschaffung. Da fragt man nach den Kosten eines Mittels, dessen Erwerb im gegebenen Falle Zweck ist. Diese Kosten drückt man aus

(*a*) in Gütern, die geopfert wurden,

(*b*) in Arbeit, die dem Erwerb des Mittels gewidmet wurde,

(*c*) in Schaden, welcher mit der Opfer des Gutes bezw. mit der Arbeit verbunden ist,

(*d*) in dem entgangenen Erwerb anderer Mittel.

3. Kosten in der Beziehung zwischen der Geldmittelverwendung und Geldmittelbeschaffung, wobei man nach den Kosten der Mittelverwendung bzw. ihres Nutzens fragt und dieselben in allen Arten der Geldmittelbeschaffungskosten ausdrückt.

Zu einer weiteren Vereinfachung gelangen wir, wenn wir uns zum Bewusstsein bringen,

(1) dass in allen diesen Fällen zwei Dinge einander gegenübergestellt werden und zwar das, von wessen Kosten gehandelt wird, und dann die Kosten selbst. Man stellt einander gegenüber:

(*a*) der Mittelverwendung (dem Kaufe eines Gutes, dem Nutzen aus dieser Mittelverwendung), der Bedürfnisbefriedigung, der Zweckerreichung, dem Mittelerwerb (als Zweck),

(*b*) die Mittel, die entgangene Verwendung, den Nutzen der entgangenen Verwendung, die geopferten Güter, die gewidmete Arbeit, den Schaden solcher Opfer, den entgangenen Erwerb anderer Mittel und deren Nutzen.

(2) dass diese Gegenüberstellung zu dem Zwecke erfolgt, um die vorgenommene Wahl zu begründen und zu rechtfertigen, um also das, von dessen Kosten es sich handelt, mit den Kosten selbst zu vergleichen. Die Kostenerwägung ist also stets ein Wertungsvorgang.

B. DER KOSTENBEGRIFF ALS DENKINSTRUMENT DER WIRTSCHAFTSWISSENSCHAFT

Wie kann aber das Wirtschaftssubjekt den Kauf eines Gutes mit der Hingabe von Geld vergleichen, ähnlich die Bedürfnisbefriedigung mit der Arbeit, das Pferd mit Futter und Arbeitsmühe u.dgl.? *Hier beginnt die Erwägung der Wissenschaft, welche den Vorgang und die Denkweise des Wirtschaftssubjektes erklären und begreifen will; hier beginnen die Gedankenkonstruktionen der Theorie.* Die *psychologische* Erklärung kann uns nichts nützen, weil wir auch in der Staatswirtschaft ganz ähnliche Kostenerwägungen anstellen können; ein Schulbau kostet so und so viel Geld, kostet den Bau einer Kaserne, der zu unterbleiben hat, kostet Opfer der Steuerzahler u.s.f. Wir suchen daher eine theoretische Konstruktion, die *auf alle Wirtschaften passt.* Diese Konstruktion ergibt sich schon aus dem Zugeständnis, dass zwischen den einander gegenübergestellten Objekten und Vorgängen *gewählt* wird, dass also das eine *mehr gewollt wird als das andere.* Denn wenn wir uns einmal die Objekte und Vorgänge als gewollt vorstellen, so entsteht dadurch logisch notwendig die *teleologische Betrachtungsweise* mit allen ihren Denkinstrumenten. Die Warumfrage dieser Betrachtung (Warum wird A gewollt? Weil B gewollt wird) ordnet die Gedankeninhalte in *Zwecke* (ordnende) und *Mittel* (geordnete); lässt die Mittel im Hinblick auf den Zweck als fähig, den Zweck zu verwirklichen, und daher als *nützlich* erscheinen. Wenn vom Standpunkte eines Zweckes mehrere Mittel als mehr oder weniger nützlich befunden werden, so ist es ein *Werturteil.* Vergleichbare Werturteile können nur unter *einen und demselben Zweck* gefällt werden, weil *aus dem Inhalt des Zweckes der Inhalt des Nutzens (Zweckverwirklichung) hervorgeht* und *Nutzen verschiedenen Inhaltes unvergleichbar sind.* Kulturnutzen kann mit Verteidigungsnutzen nicht verglichen werden. In einer und derselben Wirtschaft sind alle verschiedenen Vorgänge untereinander zu werten; das, was an ihnen verglichen und gewertet wird, ist *ihr Nutzen, bezw. ihr Schaden für die Wirtschaft.* Es muss also für die ganze Wirtschaft ein *gemeinsamer* (vergleichbarer) *Nutzen* (und Schaden) vorhanden sein. Ein solcher kann nur aus dem *gemeinsamen Zweck der Wirtschaft,* dem ordnenden Zweck hervorgehen.

Wenn daher das Wirtschaftssubjekt innerhalb seiner Wirtschaft irgendwelche Kostenerwägungen anstellt, so kann das Gemeinsame, was bei der Gegenüberstellung und Wertung des, von wessen Kosten geredet wird, und der Kosten selbst *nichts andere sein, als der für die ganze Wirtschaft gemeinsame Nutzen und Schaden,* und wenn im üblichen Sprachgebrauch bei der Kostenerwägung anstatt Nutzen und Schaden nützliche und schädliche Objekte und Vorgänge (das Pferd einerseits und die Reise nach Italien, Geld, Arbeit, Futter, Zeit, Raum andererseits), oder wenn diesen Objekten Nutzen und Schaden (dem Pferd die Freude der Reise nach Italien, die Arbeitsmühe) gegenübergestellt werden, so muss *diese Redeweise als eine ungenaue Brachylogie aufgefasst werden,* aus welcher *keine Anhaltspunkte für die wissenschaftliche Fassung des Kostenbegriffes* geschöpft werden dürfen. Das gilt auch für den Fall, dass *Zeit und Raum* als Kosten erklärt werden und dabei das gemeint wird, was in derselben Zeit oder in demselben Raum sonst anberaumt werden könnte.

Kosten sind weder Objekte, noch Vorgänge (Arbeit), noch Zeit und Raum; *Kosten sind Zweckeinbusse, also die Negation des Nutzens, welcher eine Zweckverwirklichung ist.* Wenn Gesundheit Zweck ist, so ist die Medizin als Objekt und ihre Verwendung als Vorgang nützlich, weil sie einen *Nutzen, Zweckverwirklichung, Genesung,* herbeiführen kann. Dergleichen ist *Schaden als Zweckeinbusse* vom schädlichen Objekt oder Vorgang zu unterscheiden. Wenn also Pferd und Geld einander gegenübergestellt werden, so ist dabei der Nutzen des Pferdes und jener der sonstigen Geldverwendung (eines anderen Kaufes) zu verstehen. Wenn Pferd und Arbeit einander gegenübergestellt werden, so ist darunter der Nutzen des Pferdes und der Schaden der Arbeit (Arbeitsmühe) zu verstehen.

Die Wirtschaftswissenschaft scheidet also aus dem Sprachgebrauch alle jene Redeweisen aus, wo als Kosten das Mittel, die entgangene Mittelverwendung, das geopferte Gut, die Arbeit, der entgangene Erwerb eines Mittels, Zeit und Raum bezeichnet werden, weil all das nur *brachylogische* und *ungenaue Ausdrucksweisen für Schaden oder entgangenen Nutzen sind.* Wissenschaftlich richtig können Kosten nur *entgangener Nutzen oder Schaden sein* (ob beides, werden wir später sehen), *nie aber Objekte und Vorgänge als Träger dieses Nutzens und Schadens.*

Daraus geht aber hervor, dass gerade so wie der Nutzen und Schaden, so müssen auch die Kosten, die doch mit den ersteren identisch sind, in *verschiedenen Wirtschaften verschieden sein.* Wir nehmen an, dass die einfache *Individualwirtschaft* mit einfacher Mittelbeschaffung und Mittelverwendung von der *subjektiven Wohlfahrt* (Zufriedenheit) *als Zweck* beherrscht wird. Dann sind *Nutzen und Schaden subjektiv* (Zu- und Abnahme der subjektiven Wohlfahrt); dann sind aber auch die *Kosten subjektiv.* Wenn aber von den Individualwirtschaften der *Gelderwerb als Zweck* abgelöst und in einer selbständigen Wirtschaft (Unternehmung) verfolgt wird, dann entlehnen *Nutzen und Schaden* diesem Zweckinhalt (Gelderwerb) auch ihren Inhalt (*Geldzunahme*, *Geldverlust*) und dann sind auch *Kosten in Geld* ausgedrückt. Wenn der Komplex von Akten, welcher *Staatswirtschaft* heisst, durch den *idealen Menschen und das ideale Volk als Zweck* erklärt wird, dann schöpfen Nutzen und Schaden dieser Wirtschaft (*Zu- und Abnahme an Leben*, *Gesundheit und Kultur*) aus diesem Zwecke ihren Inhalt; *denselben Inhalt haben auch die Kosten dieser Wirtschaft.*

C. SCHADEN UND ENTGANGENER NUTZEN ALS KOSTEN

Es steht nun fest, dass der *Inhalt der Kosten mit jenem des Nutzens und Schadens identisch ist.* Nutzen und Schaden als positive und negative Veränderungen (Zweckverwirklichung, Zweckeinbusse) sind unter einem und demselben Zweck vergleichbar, weil sie positive und negative *Grössen desselben Inhaltes* darstellen. Kosten können also nur entweder Nutzen oder Schaden sein. Wenn Nutzen die Kosten repräsentieren soll, so wird stets der *entgangene Nutzen* gemeint.

Da nun die Kosten stets dem Nutzen gegenübergestellt werden, so wird einmal der *bewirkte Nutzen* mit dem *entgangenen Nutzen* und das andere Mal der *bewirkte Nutzen* mit dem *bewirkten Schaden* verglichen. Es handelt sich also darum, dass der zu bewirkende Nutzen durch den entgangenen Nutzen oder durch einen gleichzeitig bewirkten Schaden *erkauft* wird.

Wenn ein Nutzen durch einen anderen (den entgangenen) Nutzen erkauft werden soll, so ist es nur so möglich, dass das Wirtschaftssubjekt *vor der Wahl zwischen zwei Nutzen steht*, weil nur einer *aus einem und demselben Mittel* (aus einem und *demselben Gut*, aus verschiedenen Akten in *derselben Zeit* oder in *demselben Raum*) bewirkt werden kann. Im *Zeitpunkte der Wahl* ist noch *keiner von den beiden Nutzen bewirkt und keiner entgangen*, nur der eine ist grösser und der andere kleiner, bezw. erscheint so dem Wirtschaftssubjekt. Es vergleicht und *wertet die Grösse des Nutzens zweier* (oder mehrerer) *Akte*, zweier Verwendung desselben Mittels für verschiedene Zwecke, zweier Tätigkeiten in derselben Zeit u.dgl. Um eine reine Wahl zwischen dem grösseren und kleineren Nutzen handelt es sich, wenn sich das Subjekt bei der Vollziehung der Wahl *keines Gutes begibt*, sondern z.B. zwischen zwei Tätigkeiten in derselben Zeit und deren Nutzen entscheidet; kann man da aber sagen, dass man bei der bewirkten Wahl den einen Nutzen geopfert, verloren hat, um den anderen zu erreichen? Nein, denn *man kann nicht verlieren oder opfern, was man gar nicht gehabt hat.* Wenn mir jemand ein Tausend Geldeinheiten schenkt und dieselben zur Auswahl in Papier oder in Gold anbietet, so kann ich—wenn ich das eine gewählt habe—nicht sagen, dass ich das andere verloren habe. (Dass in diesem Falle die Wahl aus der Schenkung arbeitslos und die oben erwähnte Tätigkeit eventuell mit der Arbeitsmühe verbunden ist, ist vorderhand gleichgültig, weil wir nicht nach dem bewirkten Schaden, sondern nur nach dem entgangenen Nutzen fragen.) Weil der Nutzen durch die Kosten erkauft wird, so *vermindern die Kosten den Nutzen und der Nutzenüberschuss ist Ertrag*. Wenn sich das Subjekt für *keine der* möglichen Tätigkeiten in der gegebenen Zeit entscheidet, so ist deshalb *keine Verschlechterung im Nutzenstand* eingetreten; trifft er die Wahl, so tritt ein Nutzen (eine Verbesserung im Nutzenstande) ein, aber durch das Entfallen der sonstigen Tätigkeit und ihres Nutzens tritt keine Verschlechterung des Nutzenstandes ein. Der *bewirkte und gewählte Nutzen vermehrt ganz und ungeschmälert den Nutzenstand, nicht etwa nur um den Ertrag*, der verbleibt, wenn man von dem bewirkten den entgangenen Nutzen in Abzug bringt. Den letzteren kann man nicht in Abzug bringen, weil *sein Unterbleiben* *keine Verschlechterung des Nutzenstandes* bedeutet. Dann kann sich aber hier *beim entgangenen Nutzen um keine echte Kosten handeln.*

Erweitern wir nun unsere Erwägung auf den Fall, in welchem die bewirkte Wahl den "*Verbrauch*" *eines Gutes*, z.B. die *Hingabe des Geldes* beim Kauf bedeutet. Vorhin konnte gesagt werden, dass kein (entgangener Nutzen) geopfert wurde, weil man nicht opfern oder verlieren kann, was man nicht hat. Hier aber begibt man sich des Geldes und damit eines *gesicherten Nutzens** und die Lage scheint eine geänderte zu sein. Bei näherer Betrachtung sieht man aber, dass das Ergebnis genau dasselbe ist wie in jenem Falle, wo man sich eines Gutes nicht begibt. Denn der Besitz einer Geldsumme *sichert dem Besitzer nur die Wahl* so viel Güter zu wählen, als für diese Geldsumme käuflich sind, nichts weiter. *Das Geld ist noch nicht Nutzen*, seine Hingabe beim Kauf ist die Bewirkung der Wahl, welche dem Subjekte *den Nutzenstand nur vergrössert*, aber *keine Verminderung des Nutzenstandes* bedeutet. Aber der Verlust einer bestimmten Geldmenge hat doch die Einengung des Nutzenstandes zur Folge! Nicht des Nutzenstandes, sondern der möglichen Nutzenvergrösserung. Für eine bestimmte Geldsumme kann das Subjekt eine Reihe von Gütern nach dem relativen Nutzen kaufen. Wird ein Teil der Geldsumme verloren, so verkürzt sich die käufliche Güterreihe dem Maximalzwecke entsprechend um die relativ mindest nützlichen Güter, welche für das verlorene Geld hätten gekauft werden können. Wird aber die gleiche Summe zum Kauf eines relativ nützlicheren Gutes in der Reihe hingegeben, so wird *doch die Reihe um die erwähnten mindest nützlichen Güter nicht gekürzt.* Man wird uns aber weiter einwenden, dass—wenn man diesen nützlicheren Kauf verwirklicht—dann kein Geld mehr verbleibt, die Güter zu kaufen, die in Fortsetzung an die Reihe kämen, wenn sich die verfügbare Geldsumme um den Kaufpreis des in Rede stehenden nützlicheren Kaufes vermehren würde. Also nicht der letzte gedeckte Nutzen (Grenznutzen), sondern der *erste ungedeckte Nutzen (Postgrenznutzen) sei als entgangener Nutzen die Kostenkomponente des bewirkten Nutzens eines vollzogenen Kaufes.*† Aber von dem entgangenen Postgrenznutzen gilt ganz dasselbe wie von dem entgangenen Grenznutzen; er bildet *keine Kostenkomponente des Nutzens eines bewirkten Kaufes*, er vermindert diesen Nutzen nicht, er führt nicht per Saldo zu einem Ertrag, weil das Unterbleiben der diesem Nutzen entsprechenden Käufe *keine Verminderung des Nutzenstandes ist*. Übrigens muss man fragen, warum dem Nutzen des bewirkten Kaufes *gerade der Grenznutzen oder der Postgrenznutzen* als Kosten gegenübergestellt wird. Mit demselben Rechte könnte man dem Nutzen des bewirkten Kaufes jenen *jedes* beliebigen anderen Ersatzkaufes gegenüberstellen. Dass man dazu den Grenznutzen verwendet hat, ist dadurch zu erklären, dass es die *Verlustidee* war, welche bei Hingabe des Preises den Kostengedanken auftauchen liess (das als Kaufpreis hingegebene Geld wird als "verloren" betrachtet). Denn *wozu* — so muss man fragen — wird diese ganze Konstruktion gemacht? Um die Vornahme der bewirkten Käufe zu erklären! Alle Käufe werden vorgenommen, die nützlicher sind als die Grenz- bezw. Postgrenzkäufe! Aber woher kennen wir die Nützlichkeit der letzteren? Um die Nützlichkeit der Grenz- bezw. Postgrenzkäufe zu kennen, muss man *alle Käufe kennen, die vom Subjekt der Reihe nach als relativ nützlicher vorgenommen werden, bis zu den relativ mindest nützlichen noch gedeckten oder schon ungedeckten*. Deshalb sagen wir, dass es nichts nützt, den Nutzen eines zu bewirkenden Kaufes mit jenem der Grenz- bezw. Postgrenzkäufe zu vergleichen, weil *letztere unbekannt sind*, und dass es notwendig ist, den Nutzen eines zu bewirkenden Kaufes mit jenem *aller möglichen* Ersatzkäufe (Käufe für denselben Betrag) gegenüberzustellen, um die Vornahme des Kaufes als *die relativ nützlichste* zu erklären und zu begreifen.

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* Wir meinen hier nur den indirekten Nutzen des Geldes, seine Kaufkraft, weil bei Betrachtung des direkten Nutzens des Geldgutes sein Geldcharakter verschwindet.

† Dabei wird noch ein Streit geführt, ob der Postgrenznutzen einer Geldeinheit multipliziert werden soll, um den entgangenen Nutzen des gezahlten Preises zu ermitteln, oder ob es der Nutzen der Güter ist, die an die Reihe kämen, wenn sich die verfügbare Geldsumme um den Kaufpreis vergrössern würde.

Dann aber wird die ganze Idee, die den entgangenen Nutzen der Grenz- bezw. Postgrenzkäufe als Kosten des Nutzens eines zu bewirkenden Kaufes zu erklären, hinfällig, denn wenn man diesem Nutzen die entgangenen Nutzen *aller* möglichen Ersatzkäufe in ihrer Summe als Kosten gegenüberstellen müsste, dann würde kaum noch ein Kauf als vorwiegend nützlich erscheinen.

Dadurch hat sich aber die ganze Problemstellung der Erklärung der Käufe verschoben; wir fragen nicht mehr, *warum ein bestimmter Kauf vollzogen wird*, weil er isoliert von allen übrigen Käufen gar nicht erklärt werden kann, sondern *wie verwendet das Wirtschaftssubjekt sein Geld* (Einkommen). Es verwendet dasselbe *nach dem relativen Nutzen** der Geldeinheit, welches Gesetz eine Ordnung, eine Reihe unter allen möglichen Käufen nach der relativen Nützlichkeit herbeiführt, welche

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* Siehe, *Teleologische Theorie der Staatswirtschaft*, 1932, pp. 44, 111, 164.

Reihe dort abgebrochen wird, wo der Geldvorrat erschöpft ist. *Die Vergleichung der Nutzen zweier Käufe wird zu einer reinen Nutzenerwägung, sie ist keine Kosten- und Ertragserwägung.* Denn es darf auch nicht vergessen werden, dass zu den unechten "Kosten" die im entgangenen Nutzen bestehen, erst *echte Kosten herbeitreten, welche mit der Geldbeschaffung verbunden waren und in der Individualwirtschaft in Arbeitsmühe bestehen.*

Wir haben aber noch den Fall zu erörtern, dass sich das Subjekt bei der Nutzenwahl nicht des Geldes, sondern *eines direkten konkreten Gutes*, z.B. des Mehles *begibt* und für das Mehl im Tausche Fleisch erwirbt. Da wird man auf den ersten Blick meinen, dass der Fall ein ganz anderer ist, als wenn sich das Subjekt des Geldes begibt, weil das direkte Gut ein Träger eines bestimmten Nutzens war, der verloren ging und die Kostenkomponente zum Fleischnutzen darstellt. Und dennoch ist es ein Trugschluss. Nehmen wir an, dass für das Wirtschaftssubjekt der Nutzen von dem getauschten Mehle N und jenes des dafür zu erlangenden Fleisches $N + x$, also um x grösser ist, was angenommen werden muss, denn sonst wäre der Tausch nicht erklärlich; nehmen wir weiter an, dass aber das x viel kleiner ist als das N. Da kommen wir durch die erwähnte "Kosten"konstruktion zu dem merkwürdigen Ergebnis, dass der Wirtschafter zugleich gut und schlecht tut; er tut gut, wenn er sein Mehl für das Fleisch eintauscht, weil das letztere einen um x grösseren Nutzen liefert, als das Mehl; er tut aber schlecht, weil er im Tauschfall $N + x$ gewinnt, aber N opfert, und daher aus seinem Mehl nur einen wirklichen Nutzen (Nutzenüberschuss, Ertrag) von x erzielt, während er bei der direkten Verwendung von Mehl den vollen und ungeschmälerten Nutzen N erworben hätte, welcher Nutzen grösser ist als x. Der Tausch wäre darnach nur dann noch vorteilhaft, wenn x grösser wäre als N, also *wenn der Nutzen des im Tausch erlangten Gutes mehr als doppelt so gross wäre, als jener des im Tausch hingegebenen Gutes, was absurd ist.*

In der Tat ist es abermals eine *einfache Nutzen-, aber keine Kostenerwägung.* Der Besitz des direkten Gutes ist wieder eine *Sicherung* eines bestimmten direkten Nutzens, aber noch nicht die *Bewirkung* dieses Nutzens. Liegt die Möglichkeit vor, für das direkte Gut ein anderes (also für den direkten Nutzen einen indirekten) zu erreichen, dann steht das Subjekt *vor der Verwendung des Gutes* wieder vor der Wahl, das Gut entweder *direkt* zu verwenden und den *direkten* Nutzen zu erlangen, oder dasselbe *indirekt* (im Tausch) zu verwenden, und den *indirekten* Nutzen zu erlangen. Und es ist geradeso, als ob für das Geld der eine oder der andere Nutzen zu haben wäre. Man fragt nach den verschiedenen Nutzen der möglichen Gutsverwendungen; dass der eine Nutzen direkt und der andere indirekt ist, ändert nichts an der Nutzenerwägung, weil es nur auf die Grösse des Nutzens ankommt.

Dadurch verschiebt sich aber wieder das zu erklärende Problem selbst. Man will nicht den *einzelnen* konkreten Tausch durch den erlangten und verlorenen Nutzen begreifen und erklären, sondern man fragt, *wie der Vorrat eines bestimmten Gutes verwendet wird*; die Antwort lautet: Nach dem relativen (direkten oder indirekten) Nutzen der Gutseinheit. Durch diese Problemstellung wird nicht nur erklärt, ob der einzelne Tausch verwirklicht wird, sondern *inwieweit es sich lohnt, ein Gut gegen das andere einzutauschen*. Denn durch den Tausch wird der Vorrat des einen Gutes gekürzt und jener des anderen gestreckt, bis es zu einem bestimmten Verhältnis der Grenznutzen der letzten Gutseinheiten kommt, bei welchem eine weitere Verschiebung (Tausch) mehr schaden- als nutzbringend ist.*

Wir haben den Fall des entgangenen Nutzens als Kosten eingehender behandelt, weil es der grösste Irrtum und Fehler ist, der am meisten verbreitet ist. Dass es sich uns nicht um eine scholastische Begriffsspalterei oder eine abweichende Nomenklatur handelt, wird zum Schluss dargelegt werden. Damit erledigt sich der erste Fall mit dem Ergebnis, dass *der entgangene Nutzen keine Kosten darstellt*, und es verbleibt der zweite Fall, in welchem die Kosten als positiver Schaden in Erscheinung treten.

Wenn dem bewirkten Nutzen ein bewirkter Schaden als Kosten gegenübergestellt wird, dann muss es unvermeidlich sein, dass der Nutzen nur durch den Schaden erreicht werden kann, was so zu verstehen ist, dass der Akt, aus welchem der Nutzen zu erwarten ist, (hauptsächlich Mittelbeschaffung) mit Schaden verbunden ist. Derselbe Akt ist nutz- und schadenbringend, enthält in sich eine Zweckverwirklichung und gleichzeitig eine Zweckeinbusse. Die Bewirkung dieses Aktes bedeutet die Bewirkung des Nutzens wie des Schadens, das Unterbleiben dieses Aktes bedeutet das Unterbleiben beider. Man vergleicht hier den Nutzen und Schaden eines und desselben Aktes, in welchen beide projiziert werden, wogegen man im Falle des entgangenen Nutzens den Nutzen zweier verschiedenen Akte verglich.

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* Wenn für 5 kg Mehl 1 kg Fleisch zu haben ist, dann besteht kein Interesse an weiterem Tausch, wenn der Grenznutzen vom Fleisch fünfmal so gross ist als jener von Mehl, wenn er also zu der Tauschrelation umgekehrt proportional ist.

Der Schaden ist Zweckeinbusse, ist eine positive Verschlechterung an dem vorhandenen (nicht zu bewirkenden) Nutzenstande. *Der Schaden, welcher mit der Nutzenverfolgung* (hauptsächlich Mittelbeschaffung) *verbunden ist, stellt die echten Kosten dar,* denn diese Kosten vermindern tatsächlich den erreichten Nutzen, sodass der *Nutzeffekt per saldo, der Ertrag eine Differenz zwischen dem erreichten Nutzen und den Kosten darstellt,* was bei dem entgangenen Nutzen nie der Fall war. *Die Kostenerwägung ist eine Ertragserwägung.*

Der Inhalt der Kosten richtet sich wie jener des Nutzens nach dem Zweck der Wirtschaft. In der *Individualwirtschaft mit der subjektiven Wohlfahrt als Zweck an der Spitze,* sind Kosten und Nutzen subjektiv (Verminderung und Vermehrung der persönlichen Wohlfahrt) Arbeitsmühe stellt immer die Kosten dieser Wirtschaft dar. Es kann aber vorkommen, dass die Verwendung eines und desselben Mittels gleichzeitig nutz- und schadenbringend ist; der unmittelbare Genuss aus dem Rauchen ist im nachhinein von Angstgefühlen begleitet; das Rauchen bedeutet daher gleichzeitig Plus und Minus der subjektiven Wohlfahrt (die *objektiven* Schäden an Gesundheit lassen wir ausser Acht). Ist *Gelderwerb* Zweck der Wirtschaft (*Unternehmung*), dann ist Zunahme des Geldes Nutzen, Verlust des Geldes sind Kosten, Ertrag ist die Differenz. Kosten sind aber nicht etwa entgangener Geldgewinn. In der solidaristischen *Staatswirtschaft* ist das *Menschen-* und *Volksideal* der ordnende Zweck dieser Wirtschaft. Geldeinheiten sind Mittel auch in dieser Wirtschaft, deren Inhalt (und somit auch der Inhalt des Nutzens und des Schadens) Leben, Gesundheit und Kultur des Volkes ist. Bei der Verwendung der Geldmittel wird der grösste Nutzen angestrebt, was dadurch erreicht wird, dass die Geldmittel nach dem relativen Nutzen der Geldeinheit verwendet werden; der grössere Nutzen wird dem kleineren vorgezogen, was aber keine Kostenerwägung bedeutet. Die Mittelbeschaffung erfolgt durch positiven Schaden an Leben, Gesundheit und Kultur (Druck auf Verbrauch und Arbeit), also durch echte Kosten. Das Steuerproblem ist das Streben, diese Kosten möglichst zu verringern, was durch das Gesetz der relativen Kosten der Steuereinheit gewährleistet ist.*

D. SCHLUSS

Ist es nicht etwa ein Streit um Nomenklatur? Nein, es handelt sich um ein *Gedankensystem,* dessen Anordnung den wissenschaftlichen

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* Siehe, *Teleologische Theorie der Staatswirtschaft,* 1932, p. 167.

Zweck verfolgt, die Vorgänge in der Wirtschaft, insbesondere den Tausch und Kauf, wie überhaupt die Mittelbeschaffung und Mittelverwendung in der Wirtschaft und zum Schluss das Preissystem zu erklären. Diese Anordnung muss *logisch einwandfrei* sein, muss aber überdies dem *wissenschaftlichen Zweck am besten dienen*, muss also *logisch richtig* und *wissenschaftlich zweckmässig* sein.

Das, was die Vorgänge in der Wirtschaft ordnet, sind die aus dem ordnenden Zweck der Wirtschaft sich ergebenden Nutzen und Schäden, bezw. das Streben die ersteren maximal und die letzteren minimal zu gestalten. Insoferne der Weg zur Erreichung eines Nutzens nur über einen Schaden führt, so wird der Schaden zu Kosten dieses Nutzens, und der reine Nutzeffekt (der Überschuss des Nutzens über die Kosten) wird zum Ertrag. Der Kostengedanke fällt mit dem Ertragsgedanken zusammen. Weil durch verschiedene Anwendung desselben Mittels ein verschiedener Nutzen entsteht, so kann von einer *Nutzenordnung* (bei der Mittelverwendung) gesprochen werden; da derselbe Nutzen durch verschiedene Beschaffungsarten und deren verschiedene Kosten herbeigeführt werden kann, so kann von einer *Kostenordnung* (bei der Mittelbeschaffung) gesprochen werden. In der Nutzenordnung wird der relativ grössere Nutzen dem relativ kleineren Nutzen, in der Kostenordnung werden die relative kleineren Kosten den relativ grösseren Kosten vorgezogen. Durch die Zusammenfassung beider entsteht die *Ertragsordnung* und die *Grenze der Rationalität in der Mittelbeschaffung* (*Mittelknappheit*) *und der Mittelverwendung.**

Der sehr verbreitete Fehler der Wirtschaftstheorie (z.B. der österreichischen Wertlehre†) beruht darin, dass die *reine Nutzenordnung in eine Ertragsordnung verwandelt wird*, weil der Nutzen der unterbliebenen Handlung als Kosten der bewirkten Handlung erklärt wird; der *entgangene Nutzen* wird mit dem *Schaden* identifiziert. Der Fehler wird ganz auffallend, wenn man dazu noch die echten Beschaffungskosten in Erwägung zieht, denn dann wird der Nutzen des bewirkten Kaufes durch *doppelte Kosten* erkauft und zwar durch die echten Kosten bei der Geldbeschaffung (Arbeitsmühe) und durch die unechten Kosten, den entgangenen Nutzen bei der Geldverwendung. Der Fehler wird überdies durchsichtig beim Tausch, welcher — wenn ihm der Kostengedanke zugrundegelegt wird (dem Nutzen des im Tausch erlangten Gutes wird der verlorene Nutzen des im Tausch hingegebenen Gutes als Kosten gegenübergestellt) — nur dann vorteilhaft ist, wenn der erworbene Nutzen mehr als doppelt so gross ist, als der geopferte Nutzen, was absurd ist. *Die Umwandlung der reinen Nutzenordnung in eine Ertragsordnung ist logisch unhaltbar* und führt zu unrichtigen und absurden Ergebnissen.

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* Siehe meine *Teleologische Theorie der Staatswirtschaft*, pp. 48, 159.

† Siehe die Abhandlungen von Morgenstern und Mises im Sammelwerke, *Probleme der Wertlehre*. Herausgegeben von Mises und Spiethoff, 1931.

Zu der *logischen Unrichtigkeit* gesellt sich überdies die *wissenschaftliche Unzweckmässigkeit*; vielleicht ist die letztere die Urfehler. Denn die Umwandlung der reinen Nutzenordnung in eine Ertragsordnung entstand dadurch, dass man *den einzelnen Kauf und den einzelnen Tausch isoliert* erklären und begreifen wollte; diese Problemstellung war wissenschaftlich unzweckmässig, da sich diese Frage befriedigend gar nicht beantworten lässt, weil alle Käufe als eine Nutzenordnung aller Verwendungen des Geldvorrates zusammenhängen. Aber das Streben den einzelnen Kauf zu erklären führt dazu, dass man denselben durch das Hingegebene und Entgegengenommene (der Kostengedanke) erklären wollte, was zu logisch unhaltbaren und wissenschaftlich unbefriedigenden Ergebnissen führen musste. Die wissenschaftlich zweckmässige Problemstellung fragt nach der *Nutzenordnung der Verwendungen eines Mittelvorrates* und führt zu Ergebnissen, die logisch einwandfrei und für die Preistheorie unmittelbar anwendbar sind.

IL PUNTO CRITICO DELLA DEFLAZIONE

MARCO FANNO, *R. Università, Padova*

1º Le esperienze monetarie della guerra e del dopo-guerra, dense di insegnamenti, stimolarono gli economisti di ogni paese a riprendere in esame le teorie monetarie elaborate per oltre un secolo da una schiera di eminenti studiosi. Ma il riesame di coteste teorie, pur profondo e accurato, portò più che altro alla revisione o al perfezionamento di alcuni loro punti secondari, non al loro mutamento radicale. Cosicché, tutto sommato, esse restano nel complesso sostanzialmente immutate.

Insegnano le teorie correnti che l'inflazione danneggia i creditori e avvantaggia i debitori e che la deflazione reca ripercussioni opposte.* Le recenti esperienze confermarono questa tesi,† ma consentirono altresì di stabilire, per quanto riflette almeno l'inflazione, che ciò avviene solo in quanto questa sia di breve durata; perché qualora si prolunghi per molto tempo, essa finisce facilmente col trasformarsi da lenta e controllabile in principio, in rapida e precipitosa, sì da portare rapidamente all'annullamento della moneta inflazionata e con essa alla disorganizzazione più completa dell'economia nazionale e quindi alla rovina ad un tempo dei creditori e dei debitori.‡ Esiste pertanto, secondo le recenti esperienze monetarie, *un punto*, dirò così, *critico* dell'inflazione, al di là del quale questa si limita, per quanto riguarda la distribuzione della ricchezza, ad avvantaggiare alcuni gruppi sociali e a danneggiarne altri, ma al di là del quale essa finisce col danneggiare tutte le classi sociali.§

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* Cassel, *La monnaie et le change après 1914*, p. 29; Moulton and McGuire, *Germany's Capacity to Pay*, New York, 1923, p. 218; Keynes, *A Tract on Monetary Reform*, London, 1923, pp. 5–38; Rist, *La déflation en pratique*, Paris, 1924.

† Eulenburg, *Die soziale Wirkungen der Währungsverhältnisse*, in *Jahrbücher für Nationaloekonomie und Statistik*, November–December 1924, pp. 748–94; Bresciani-Turroni, *Le vicende del marco tedesco*, in *Annali di Economia*, vol. vii, September 1931, pp. 377–441.

‡ Per le esperienze monetarie dell'Austria vedi: Van Walré de Bordes, *The Austrian Crown*, London, 1924, pp. 188–99; per quelle della Russia vedi: Katzenellenbaum, *Russian Currency and Banking*, p. 95; per quelle della Germania vedi: Bresciani-Turroni, *Le vicende del marco tedesco*, loc. cit., pp. 52–62; Forgeau, *La dépreciation et la révalorisation du mark allemand*, Paris, 1926, pp. 8 et seqq.; von Mises und Klein, *Die geldtheoretische und geldrechtliche Seite des Stabilisierungsproblems*, München, 1923, p. 6.

§ "Thus a characteristic feature of periods of monetary inflation is the *breaking-point*, a certain moment after which begins a precipitous collapse of the value

Nel momento presente l'economia mondiale sta attraversando un periodo di violenta *deflazione*. Nuovi problemi si profilano quindi, dopo quelli dell'inflazione, all'orizzonte degli studiosi. E fra questi problemi uno in particolare va segnalato per la sua importanza ed è questo: *se, come per l'inflazione, esista un punto critico anche per la deflazione.* Scopo della presente nota è di chiarire questo punto fondamentale.

2⁰ Deflazione monetaria significa diminuzione del volume del medio circolante più rapida della diminuzione, o aumento del medio circolante meno rapido dell'aumento del fabbisogno monetario, quale risulta in ciascun momento dal volume del traffico, dalla velocità di circolazione della moneta, dal livello esistente dei prezzi. L'effetto visibile di essa è il ribasso di questi. Ma le sue ripercussioni sono ben più vaste e complesse, e sono sopratutto diverse secondo il ritmo con cui essa si segue, e secondo la sua misura e la sua durata. Anzitutto, per quanto riflette il ritmo, se questo è lento per modo che il ribasso annuale percentuale dei prezzi è minore del tasso reale dei profitti, e ai produttori rimane quindi, per quanto assottigliato, un margine di profitto nominale, la deflazione non reca perturbamento sensibile all'andamento della produzione, e le sue ripercussioni si riducono a una lenta redistribuzione della ricchezza dai creditori ai debitori e dai percettori di redditi variabili a quelli di redditi fissi, secondo le linee indicate dalla teoria corrente. Ciò avviene ogni qualvolta il fabbisogno monetario, sotto la pressione dello sviluppo economico, aumenti un po' più rapidamente del volume del medio circolante e della sua velocità di circolazione. Onde ogni qualvolta ciò si verifichi la deflazione diviene compatibile col progresso economico e procede anzi di pari passo di questo. Un esempio classico di questa situazione viene fornito dalle vicende dell'economia mondiale nell'ultimo quarto del secolo XIX⁰. Tra il 1873 e il 1896 i prezzi-oro diminuiscono, come è noto, sensibilmente in tutto il mondo. In Inghilterra per esempio il numero indice dei prezzi diminuisce da 111 a 61,* vale a dire nella misura media annuale del 2,30 %, che è indubbiamente inferiore alla media del tasso reale dei profitti.† Orbene questo ribasso prolungato dei prezzi non

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of the monetary unit. . . ." (Katzenellenbaum, op. cit., pp. 24–25). Vedi anche: Sella, *Teoria del punto critico monetario, in Riforma Sociale*, Agosto 1925, pp. 313–36.

* Sauerbeck, *The Course of Average Prices of General Commodities in England*, London, 1908.

† Questa percentuale media fu ricavata calcolando la media aritmetica della diminuzione percentuale del numero indice dei prezzi di ogni singolo anno rispetto a quello dell'anno precedente.

impedì che le economie dei vari paesi continuassero nel frattempo a progredire e in alcuni casi considerevolmente, come lo attestano i numeri indici complessi delle condizioni economiche calcolati dal Mortara, che passano tra il 1873 e il 1896 da 48,5 a 83,1 per l'Inghilterra, da 44 a 83 per la Francia, da 29,3 (nel 1874) a 70,4 per la Germania.*

3° Ma le ripercussioni possono essere invece molto gravi se il ribasso annuale dei prezzi è proporzionalmente superiore al tasso reale dei profitti e si protrae inoltre per qualche anno ininterrottamente. Il profitto nominale (monetario) diviene allora negativo; e i produttori, perdendo, sono stimolati a restringere la produzione. In questo caso il ribasso dei prezzi non soltanto diviene incompatibile col progresso economico e quindi con l'aumento della produzione, ma si accompagna anzi a una diminuzione di questa, con danno grave ed evidente della classe lavoratrice. Ma non sono queste le sole ripercussioni della deflazione, nè le più importanti per il problema che ci interessa. Esse sono ben altre; e per studiarle considereremo da prima il caso di un singolo produttore, salvo considerare più tardi quello di una collettività di produttori.

Si supponga un industriale provvisto di un patrimonio di un milione di lire, che egli investe per metà (L. 500,000) in macchine, magazzini, tettoie, vale a dire nel capitale fisso della sua industria, e per metà anziché nel capitale circolante di questa, in titoli pubblici, case, fondi, cioè in beni fruttiferi, ma estranei completamente al processo produttivo dell'industria stessa e ch'egli può quindi alienare senza che questa abbia a soffrirne. Per procurarsi i capitali circolanti necessari egli dovrà ricorrere al credito. Supponiamo che egli abbia bisogno a tal uopo di un milione.

Se la quota di ammortamento del capitale fisso è del 10 % annuo e l'interesse sul prestito del 5 % e se il processo produttivo ha, poniamo, la durata di un anno, il nostro produttore, per potere coprire tutte le spese, deve ricavare dalla vendita annuale del suo prodotto almeno L. 1,100,000 (di cui 1 milione per rimborsare il prestito, 50,000 di interessi e 50,000 per ammortamento dei capitali fissi). Supponiamo ora che nel corso del primo anno avvenga un ribasso medio dei prezzi del 25 %, per modo che il suo netto ricavo si riduca a L. 825,000. Egli subirà la perdita seguente. Il suo capitale fisso, già ridottosi per logorio economico da 500,000 a L. 450,000 si deprezzerà (del 25 %) a L. 337,500. La parte rimanente del suo patrimonio si deprezzerà a L. 375,000. Ma dovendo rimborsare alle banche L. 1,050,000 e avendo riscosso soltanto L. 825,000 (ammortamenti compresi) egli dovrà vendere parte di cotesti beni per un ammontare di L. 225,000. Egli resterà quindi con un patrimonio di L. 487,500. Un ribasso dei prezzi del 25 % gli cagiona pertanto una perdita del 51,25 %, con l'aggravante che per pagare il suo debito egli ha dovuto impiegare anche la quota di ammortamento del capitale fisso. La perdita percentuale sarebbe stata maggiore se la proporzione tra la somma presa a prestito e il patrimonio fosse stata maggiore di quella del caso in esame. Sarebbe stata minore nel caso opposto. In tesi generale può affermarsi che un ribasso dei prezzi nella percentuale x cagiona: (1) una perdita che in teoria può ritenersi uguale alla percentuale x a tutti coloro che lavorano esclusivamente con capitale proprio; e (2) una perdita in una percentuale maggiore di x a tutti coloro che lavorano solo in parte con capitale proprio, e tanto maggiore quanto maggiore è la proporzione del capitale mutuato in confronto del capitale proprio. Per precisare, se indichiamo con G_1 il capitale di proprietà del produttore, con G_2 il capitale preso a prestito, con $\frac{G_1 + G_2}{G_1}$ il rapporto tra la somma complessivamente disponibile e il capitale di sua proprietà, la perdita percentuale del produttore, per ogni ribasso percentuale x dei prezzi, sarà determinata dalla espressione: $x\frac{(G_1 + G_2)}{G_1}$.

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* Mortara, *Lezioni di statistica economica*, Roma 1920, pp. 209, 226, 244, 248; Mortara, *Effetti delle variazioni del potere di acquisto dell'oro*, in *Giornale degli Economisti*, February 1931, p. 142.

Ma proseguiamo il nostro esame. In seguito a questo primo ribasso il nostro produttore ridurrà la produzione, poniamo, del 10 %; e, tenuto conto di questa riduzione e del ribasso dei prezzi, esso avrà bisogno nel secondo anno di un credito anziché di 1 milione, di L. 675,000. Egli però può trovare difficoltà a procurarsi questa somma, essendosi il suo patrimonio ridotto a L. 487,500. Ma supponiamo che la banca, ignorandolo, conceda il prestito. Se non avvenissero altri ribassi nessun guaio ne deriverebbe. Il produttore, subìta la prima perdita, continuerebbe a produrre e sarebbe in grado di rimborsare a suo tempo la banca finanziatrice. Ma supponiamo invece che anche in questo secondo anno si verifichi un ribasso del 25 %. Il produttore, che per coprire tutte le spese, (ammortamenti sempre compresi) dovrebbe realizzare dalla vendita del prodotto annuale L. 758,750, ma che non realizza invece che L. 569,073, mentre d'altro canto deve rimborasare alla banca L. 708,750, dovrà, per saldare il suo debito, vendere altri beni di sua proprietà per L. 139,677. Ma i beni che gli sono rimasti e che all'inizio dell'anno valevano ancora L. 175,000 sono ora ridotti a L. 131,250. Per cui dopo averli venduti il nostro produttore rimarrà con un debito residuale verso la banca di L. 8,427, non potendo egli, per saldarlo alienare una parte dei capitali fissi della sua industria. Questi d'altro canto (ammortamento e deprezzamento dedotti) non valgono più che L. 203,125. Il suo patrimonio netto trovasi ridotto pertanto a sole L. 194,698, con una perdita quindi in questo secondo anno del 60 %, cioè superiore a quella del primo, in conseguenza dell'aumento delle proporzioni tra l'ammontare del prestito e del patrimonio del produttore.

A questo punto la situazione comincia a entrare in una fase delicata. Si supponga che il produttore, in seguito al secondo ribasso dei prezzi diminuisca la produzione di un altro 10 %. Egli avrà allora bisogno per proseguirla in questa scala ridotta e al nuovo livello dei prezzi (divenuti di un altro 25 % inferiori ai precedenti) di un prestito di L. 455,600. Ma la banca che è rimasta con un piccolo credito insoddisfatto, cioè come oggi si dice *congelato*, si troverà imbarazzata ed incerta sul da fare. Se rifiuta il prestito essa rovina il produttore, perché lo costringe a chiudere la fabbrica, e difficilmente ricupererà il residuo suo credito. Se lo accorda nulla di questo accadrà e tutto finirà bene, a condizione però che non si verifichino altri ribassi dei prezzi. Supponiamo che, nella speranza che il ribasso sia giunto finalmente al fondo, la banca conceda il prestito. Ma supponiamo anche che essa si sbagli per una seconda volta e che anche nel corso del terzo anno si verifichi un ribasso del 25 %. Alla fine di questo terzo anno la situazione del nostro produttore diventerà la seguente: debito verso la banca (per capitale e interessi) L. 478,380; costo del prodotto annuale (ammortamento del capitale fisso compreso) L. 528,380; ricavo dalla vendita L. 396,290; quindi differenza non rimborsabile alla banca L. 82,090, che unite al residuo debito precedente, formano L. 90,517 di debito complessivo. Il capitale fisso (deprezzamento e ammortamento computati) trovasi ridotto a L. 114,844. Il nostro produttore verrà a trovarsi col proprio patrimonio ridotto a poche migliaia di lire, con la disponibilità di un capitale fisso deprezzato e senza il fondo di ammortamento per reintegrarlo, e, quello che è più grave, senza la possibilità di procurarsi come prima il capitale circolante a mezzo del credito. La banca d'altro canto verrà a trovarsi con un grosso credito inesigibile. Le officine del produttore dovranno essere chiuse e gli operai licenziati. La situazione a partire da questo momento diviene critica per tutti.

Ma vediamo un po' da vicino per quale ragione ciò avvenga. Se il nostro industriale avesse lavorato esclusivamente con capitali propri impiegando l'intero patrimonio nella propria industria e distribuendone quindi l'ammontare tra capitali fissi e capitali circolanti nelle proporzioni richieste dalla tecnica ed economia industriale, egli si sarebbe trovato dopo tre anni di deflazione (nella misura annuale del 25 %) con un patrimonio di L. 421,900 anziché di un milione, ma costituito di capitali fissi e di capitali circolanti pressoché nelle stesse proporzioni di prima. Egli avrebbe quindi potuto continuare a tenere aperte le officine e lavorare; e l'unico mutamento, a prescindere da temporanei squilibri tra i vari prezzi, sarebbe stato questo: di dovere tenere i propri conti con cifre deflazionate, cioè inferiori del 58 % a quelle primitive. Ma si è creata invece la situazione indicata per avere egli investito altrimenti il proprio patrimonio e dovuto ricorrere al credito. Quindi è l'uso del credito la causa degli infortuni economici del nostro produttore.

4° Tutto questo stabilito e premesso vediamo ora, passando dall'esame del caso singolo a quello di casi molteplici, quali sieno le ripercussioni della deflazione sull'economia nazionale. Sotto il rispetto della composizione del loro patrimonio i produttori possono dividersi nei seguenti tre gruppi e cioè: (1) produttori che tengono il loro patrimonio investito ad un tempo nei capitali fissi e nei capitali circolanti delle loro imprese e ciò nelle esatte proporzioni richieste dalla tecnica della produzione; (2) produttori che tengono investito *tutto* il loro patrimonio nei capitali fissi delle loro imprese; (3) produttori che tengono investita solo una parte del loro patrimonio nei capitali fissi, ma che, per ragioni di distribuzione dei rischi, investono la parte rimanente, anziché nei capitali circolanti della loro impresa, in beni estranei al processo produttivo di questa, e per lo più facilmente realizzabili. Quali sieno nel fatto le proporzioni fra i tre gruppi di produttori è difficile precisare tanto più che esse sono probabilmente diverse da paese a paese. Ma dall'esperienza quotidiana si è portati a ritenere che il primo gruppo sia il meno importante e che quindi la grande massa di produttori appartenga agli altri due. I produttori del primo gruppo non hanno bisogno di ricorrere al credito in nessuna misura per l'esercizio della loro attività. I produttori degli altri due gruppi hanno invece bisogno entrambi del credito per procurarsi il capitale di esercizio. Quindi le condizioni da noi postulate precedentemente a proposito di un produttore possono ritenersi comuni a un grande numero di produttori; e tutto considerato può quindi ritenersi che la massima parte di questi lavori oggidì nei paesi più evoluti col sussidio del credito.

Ciò però essi possono fare solo in quanto le banche sieno in grado di concedere loro il credito di cui hanno bisogno. E le banche sono a loro volta in grado di farlo solo in quanto ricevano esse stesse, sotto forma di depositi bancari, credito sufficiente dal pubblico che risparmia e non investe. Quindi le condizioni che nei paesi più evoluti vengono a crearsi e ne formano le caratteristiche sono, fra le altre, le seguenti: (1) esistenza di risparmi non investiti direttamente dai risparmiatori e tenuti in forma di depositi bancari; (2) esistenza di un volume permanente, per quanto mutevole nel suo ammontare, di crediti bancari concessi dalle banche ai produttori; (3) esistenza a disposizione di un gran numero di produttori e quindi dei produttori, considerati come classe, di una massa di beni estranei al loro processo produttivo (titoli pubblici d'ogni genere, ecc.) e per lo più facilmente realizzabili. Costituisce questa massa di beni per i produttori come classe un *fondo di riserva* contro le perdite eventuali, e per il sistema bancario nel suo insieme *un fondo semi-liquido di garanzia* dei prestiti da esso concessi. E' dall'esistenza di queste condizioni che derivano all'economia sociale, in caso di deflazione, le ripercussioni di cue è sotto parola. Quali adunque queste ripercussioni?

Esaminando il caso di un singolo produttore abbiamo visto che man mano che la deflazione segue il suo corso: (1) il produttore tende a restringere la produzione; (2) il fondo dei beni alienabili da lui posseduti diminuisce. E abbiamo visto altresì che non appena quel fondo si sia esaurito le perdite del produttore cominciano a incidere parzialmente sulla banca sovventrice. Orbene quanto avviene per un produttore singolo avviene per tutti i produttori che agiscano nelle condizioni indicate. E quanto avviene per una banca avviene per tutto il sistema bancario nei rapporti coi suoi clienti. Quindi, considerando l'economia nazionale nel suo insieme, le ripercussioni immediate della deflazione sono le seguenti: (1) diminuzione della produzione nazionale; (2) diminuzione del fondo di riserva dei produttori e ciò sia per il deprezzamento dei beni che lo compongono, sia per l'alienazione di cotesti beni che i produttori, per fare fronte alle perdite subite, sono costretti a effettuare.* Il valore monetario di questo fondo diminuisce quindi in misura maggiore della deflazione e si logora perciò rapidamente man mano che questa prosegue. Tuttavia finché esso esiste ancora, per quanto in proporzioni ridotte, il danno *finanziario* della deflazione, a prescindere da qualche caso sporadico di insolvenza da parte di produttori sprovvisti di riserve proprie, rimane confinato ai soli produttori, perché questi, come classe, restano ancora solventi. Ma questo fondo, se la deflazione prosegue, finisce presto o tardi coll'esaurirsi. E, nel momento in cui questo avvenga, cominciano i guai. I produttori, colpiti da nuove perdite, senza possedere altri beni da alienare, trovansi nella impossibilità di rimborsare totalmente i loro debiti. I casi di insolvenza da sporadici e isolati diventano generali. Il ritmo dei rimborsi alle banche si rallenta; e i crediti di queste cominciano a *congelarsi*. Il processo di corrosione economica, che le aveva fino allora risparmiate o appena sfiorate, le investe e ferisce in pieno; e la situazione entra in una fase critica. Le banche possono, è vero, garantirsi prendendo ipoteca sugli impianti industriali dei produttori morosi. Ma questo provvedimento non giova a restituire loro la necessaria liquidità. Ond'esse, menomate nei loro movimenti, non hanno altre possibili vie d'uscita che queste: o di contrarre bruscamento il credito ai produttori per non appesantire di troppo la loro posizione, o di continuare a concedere loro i crediti di cui hanno bisogno. Se seguono la prima via esse costringono i produttori a sospendere buona parte della produzione. Col che, accentuando il ritmo della deflazione, cioè provocando nuovi ribassi dei prezzi, concorrono a rendere sempre meno esigibili i loro crediti congelati. Se invece seguono la seconda via esse lasciano per il momento la posizione dei produttori immutata, ma a prezzo di un peggioramento della propria. In entrambi i casi quindi la situazione delle banche diviene delicatissima. E basta il menomo panico dei depositanti a farla precipitare. E nel momento in cui questo avvenga la realtà, fino allora mascherata, si mostra in tutta la sua gravità. I produttori già rovinati in precedenza come debitori, risentono nuovo danno dalla improvvisa diminuzione dei crediti. Le banche, in quanto creditrici di crediti congelati e debitrici di debiti liquidi, sono ridotte all'insolvenza. I depositanti, rimanendo come creditori parzialmente insoddisfatti, subiscono essi pure delle perdite.* E la classe lavoratrice, per la chiusura delle fabbriche, è pure gravemente colpita. Si aggiunga a ciò, per completare il quadro, che la deflazione, se prolungata, rovina i proprietari di fondi ipotecati, senza che i creditori abbiano sempre modo di soddisfarsi completamente con la vendita forzata di questi. Si aggiunga infine che essa finisce anche coll'aumentare talmente il peso dei debiti pubblici da costringere gli enti debitori a ridurre forzosamente gli interessi convenuti, con sacrificio pure dei creditori. Ora queste ripercussioni supplementari della deflazione entrano in giuoco generalmente o almeno si inaspriscono in misura rilevante quando incominci la fase critica di cui è sopra parola; perché è quando, per i dissesti bancari, i prezzi precipitano e, per la conseguente diminuzione della produzione il reddito monetario e reale nazionale si contragga, che la situazione dei proprietari di fondi fortemente ipotecati diventa insostenibile e il peso reale dei debiti pubblici aumenta smisuratamente. Cosicché quelle stesse condizioni che determinano le ripercussioni primarie determinano altresì direttamente o indirettamente queste ripercussioni supplementari.

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* I beni che, in seguito alle perdite subìte, i produttori sono costretti a vendere vengono con ogni probabilitè àcquistati ai prezzi ribassati dai risparmiatori e pagati da questi coi loro depositi bancari.

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* Per i depositanti, al pari che per tutti i creditori, bisogna però distinguere un danno *nominale* da un danno *reale*. La deflazione infatti reca loro inizialmente un beneficio perché fa aumentare il valore reale dei loro crediti, pur lasciando immutato il loro ammontare nominale. Quando però invece, superato il punto critico, l'ammontare nominale del loro credito viene decurtato, in sede di fallimento o di concordato, essi subiscono un danno nominale. Ma a questo corrisponderà in definitiva un danno reale solo in quanto la decuratazione percentuale dell'ammontare nominale del loro credito sia maggiore della diminuzione percentuale del livello dei prezzi. Quindi solo in questo caso può parlarsi a stretto rigore di un vero e proprio danno dei creditori.

Per tutto ciò la deflazione che, se contenuta entro dati limiti, danneggia i soli debitori, danneggia, se oltrepassa questi limiti, tutte le classi sociali e paralizza la vita economica. Esiste quindi, come si vede, al pari che per l'inflazione, *un punto critico anche per la deflazione*. E' questo il punto a partire dal quale la deflazione comincia a vulnerare il sistema bancario. E a ragione può dirsi critico cotesto punto, sia perché a partire da esso tutte le classi sociali sono danneggiate, sia perché non appena esso venga raggiunto la deflazione diviene causa di sé stessa e una volta iniziata prosegue senza che nulla possa arrestarla.

Questo punto critico ha importanza non soltanto sotto l'aspetto economico, perché segna il limite fino al quale la deflazione può essere impunemente portata, ma anche sotto l'aspetto giuridico, perché segna il limite fino al quale le norme comuni di diritto possono trovare applicazione. Quando infatti l'economia di un paese o l'economia mondiale sia giunta, per effetto di una prolungata deflazione, a uno stato di generale insolvenza e l'applicazione rigida delle sanzioni contro i debitori insolventi importerebbe l'espropriazione di falangi di proprietari e produttori, quindi il trapasso forzato di buona parte delle imprese da persone idonee a persone o enti inetti a esercitarle e quindi il dissolvimento dell'economia sociale, è assurdo pensare all'applicazione rigida delle comuni norme di diritto e s'impone l'applicazione di altre norme, cioè di principi equitativi che, pure tenendo conto dei diritti dei creditori, salvaguardino gli interessi dell'economia nazionale.

Per cui il principio giuridico secondo il quale chi contrae un prestito resta obbligato per l'ammontare monetario nominale di questo e ove non lo soddisfi integralmente viene dichiarato insolvente e perseguito a termini di legge, principio che ha per fondamento il presupposto di una moneta con potere d'acquisto stabile, può trovare applicazione anche in presenza di una moneta con potere d'acquisto instabile, ma solo però entro i limiti, in caso di deflazione, del punto critico di questa. Il fatto che oggi si parli in tutto il mondo della necessità di rivedere l'ammontare nominale dei debiti pubblici e privati, che si eseguiscano, anche da parte di paesi finanziariamente forti, conversioni di debiti che sono vere e proprie conversioni forzate, si sospenda da parte di altri il pagamento di impegni liberamente contratti, si proponga da altri ancora l'alterazione artificiale del valore della moneta per salvare la larga schiera dei debitori rovinati, e di tutto questo si parli, e tutto questo si faccia senza che la coscienza pubblica si ribelli, dimostra che nella situazione odierna le comuni norme giuridiche cessano di costituire lo strumento più appropriato a regolare i rapporti economici tra creditori e debitori, e che ci troviamo in una di quelle situazioni in cui il punto critico della deflazione è stato superato.

5° Ma quali le condizioni da cui questo punto critico dipende, e quale quindi la misura in cui la deflazione può prolungarsi prima di raggiungerlo? Come per un singolo produttore, così per la massa dei produttori la deflazione sarebbe esente da gravi conseguenze se questi lavorassero tutti con capitali propri, cioè tenessero i propri patrimoni investiti esclusivamente nei beni costituenti il capitale fisso e di esercizio delle loro imprese in modo da non dovere ricorrere al credito. In questo caso e se al tempo stesso non esistessero debiti pubblici o privati di altro genere e non esistessero redditi fissi in senso assoluto, la deflazione potrebbe proseguire all'infinito e non esisterebbe per essa punto critico alcuno. Ma invece noi abbiamo visto che la maggior parte dei produttori tengono il loro patrimonio investito in modo da creare bensì una specie di fondo di riserva a loro disposizione, ma da dovere in pari tempo ricorrere permanentemente al credito. Ed abbiamo visto altresì che le perdite cagionate dalla deflazione ai produttori sono tanto maggiori quanta più rilevante è rispetto al loro patrimonio il volume del credito da essi ottenuto. Quindi la misura della deflazione necessaria a che questo cominci a vulnerare il sistema bancario dipende: (1) dall'ammontare delle riserve dei beni facilmente realizzabili estranei al processo produttivo, di cui i produttori come classe dispongono; e (2) dal rapporto tra il volume complessivo dei crediti bancari loro concessi e i loro patrimoni, cioè in sostanza la ricchezza privata nazionale. Quanto ai debitori ipotecari e agli enti pubblici, questi e quelli diventano rispettivamente, a parità di ogni altra condizione, tanto più rapidamente insolventi quanto maggiore è per i primi l'ammontare dei loro debiti in confronto al valore iniziale dei beni ipotecati, e quanto maggiore è per i secondi l'ammontere degli interessi annuali dovuti ai loro creditori in confronto al normale reddito monetario nazionale. Quindi quanto più piccolo è l'ammontare del fondo di riserva dei produttori, quanto più rilevante è il volume relativo dei crediti brevi loro concessi dalle banche, quanto maggiore è il volume dei crediti lunghi concessi ai creditori ipotecari, e quanto maggiore è il volume relativo dei debiti pubblici, tanto più rapidamente i debitori tutti privati e pubblici diventano insolventi in caso di deflazione e tanto più rapidamente quindi si raggiunge il punto critico di questa. Viceversa avviene nel caso opposto.

Da quanto precede resta chiarita la ragione di due caratteristiche fondamentali del processo di deflazione e cioè: (1) perché questa, anche se rilevante, rimanga in un primo periodo esente nel complesso da gravi ripercussioni sull'economia nazionale;* (2) perché i vari paesi presentino un diverso grado di resistenza alla deflazione, di guisa che una stessa deflazione, mentre viene sopportata senza danni eccessivi da un paese, riesce invece disastrosa per altri. A ciò devesi probabilmente, a prescindere dalle responsabilità del difettoso ordinamento bancario, se agli Stati Uniti la deflazione prodotta dalla presente crisi ha creato maggiori perturbamenti che altrove, essendo appunto gli Stati Uniti il paese che, per l'enorme afflusso di oro negli ultimi 18 mesi, per i depositi di oro lasciati per tanti anni presso le banche americane dai paesi Europei, per il largo e in molti casi eccessivo impiego del sistema delle vendite a rate, ha più degli altri abusato recentemente del credito.

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* Un caso tipico, che conferma il principio esposto nel testo, viene fornito dalle vicende della recente crisi americana. Dal Settembre 1929, momento in cui si inizia la crisi di borsa a Nuova York fino al Novembre 1930, momento in cui la pressione della crisi economica generale comincia a farsi sentire i prezzi delle merci all'ingrosso diminuiscono agli Stati Uniti del 15 %, e gli indici della produzione diminuiscono da 122 a 91, cioè del 24 % (*Report on Current Economic Conditions*, Memorandum No. 38 della R. Economic Society di Londra, p. 22). Ma . . . "until November 1930 the bank seemed to be weathering pression quite well. . . . Since November 1930, however, the situation has had a decidedly different aspect. . . . It therefore appeared that, though bank mortality was severe at the end of 1930, it did not assume the proportion of a country widespread epidemic until after the cutting short of business revival last summer" (Coyle, *A Review of Recent Bank Failures*, in *Review of Economic Statistics*, February 1932, p. 38). In questo caso la deflazione ha impiegato, come si vede, più di un anno per raggiungere il suo punto critico.

PROPAGATION PROBLEMS AND IMPULSE PROBLEMS IN DYNAMIC ECONOMICS*

RAGNAR FRISCH, *University of Oslo*

1. INTRODUCTION

THE majority of the economic oscillations which we encounter seem to be explained most plausibly as free oscillations. In many cases they seem to be produced by the fact that certain exterior impulses hit the economic mechanism and thereby initiate more or less regular oscillations.

The most important feature of the free oscillations is that the length of the cycles and the tendency towards dampening are determined by the intrinsic structure of the swinging system, while the intensity (the amplitude) of the fluctuations is determined primarily by the exterior impulse. An important consequence of this is that a more or less regular fluctuation may be produced by a cause which operates irregularly. There need not be any synchronism between the initiating force or forces and the movement of the swinging system. This fact has frequently been overlooked in economic cycle analysis.

If a cyclical variation is analysed from the point of view of a free oscillation, we have to distinguish between two fundamental problems: first, the *propagation* problem; second, the *impulse* problem. The propagation problem is the problem of explaining by the structural properties of the swinging system what the character of the swings would be in case the system was started in some initial situation. This must be done by an essentially dynamic theory, that is to say, by a theory that explains how one situation grows out of the foregoing. In this type of analysis we consider not only a set of magnitudes in a given point of time and study the interrelations between them, but we consider the magnitudes of certain variables in different points of time, and we introduce certain equations which embrace at the same time several of these magnitudes belonging to different instants. This is the essential characteristic of a dynamic theory. Only by a theory of this type can we explain how one situation grows out of the foregoing. This type of analysis is basically different from the kind of analysis that is represented by a system of Walrasian equations; indeed in such a system all the variables belong to the same point of time.

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* The numerical results incorporated in the present study have been worked out under my direction by assistants in the University Institute of Economics, Oslo, established through generous grants from the Rockefeller Foundation, New York, and A/S Norsk Varekrig, Oslo. As directors of the Institute, Professor Wedervang and I take this opportunity of expressing our sincere thanks for the support received from these institutions.

In one respect, however, must the dynamic system be similar to the Walrasian: it must be determinate. That is to say, the theory must contain just as many equations as there are unknowns. Only by elaborating a theory that is determinate in this sense can we explain how one situation grows out of the foregoing. This, too, is a fact that has frequently been overlooked in business cycle analysis. Often the business cycle theorists have tried to do something which is equivalent to determining the evolution of a certain number of variables from a number of conditions that is smaller than the number of these variables. It would not be difficult to indicate examples of this from the literature of business cycles.

When we approach the study of business cycle with the intention of carrying through an analysis that is truly dynamic and determinate in the above sense, we are naturally led to distinguish between two types of analyses: the micro-dynamic and the macro-dynamic types. The micro-dynamic analysis is an analysis by which we try to explain in some detail the behaviour of a certain section of the huge economic mechanism, taking for granted that certain general parameters are given. Obviously it may well be that we obtain more or less cyclical fluctuations in such sub-systems, even though the general parameters are given. The essence of this type of analysis is to show the details of the evolution of a given specific market, the behaviour of a given type of consumers, and so on.

The macro-dynamic analysis, on the other hand, tries to give an account of the fluctuations of the whole economic system taken in its entirety. Obviously in this case it is impossible to carry through the analysis in great detail. Of course, it is always possible to give even a macro-dynamic analysis in detail if we confine ourselves to a purely *formal* theory. Indeed, it is always possible by a suitable system of subscripts and superscripts, etc., to introduce practically all factors which we may imagine: all individual commodities, all individual entrepreneurs, all individual consumers, etc., and to write out various kinds of relationships between these magnitudes, taking care that the number of equations is equal to the number of variables. Such a theory, however, would only have a rather limited interest. In such a theory it would hardly be possible to study such fundamental problems as the *exact time shape* of the solutions, the question of whether one group of phenomena is lagging behind or leading before another group, the question of whether one part of the system will oscillate with higher amplitudes than another part, and so on. But these latter problems are just the essential problems in business cycle analysis. In order to attack these problems on a macro-dynamic basis so as to explain the movement of the system taken in its entirety, we must deliberately disregard a considerable amount of the details of the picture. We may perhaps start by throwing all kinds of production into one variable, all consumption into another, and so on, imagining that the notions "production," "consumption," and so on, can be measured by some sort of total indices.

At present certain examples of micro-dynamic analyses have been worked out, but as far as I know no determinate macro-dynamic analysis is yet to be found in the literature. In particular no attempt seems to have been made to show in an exact way what the relations between the propagation analysis and the impulse analysis are in this field.

In the present paper I propose to offer some remarks on these problems.

2. LE TABLEAU ÉCONOMIQUE

In order to indicate the most important variables entering into the macro-dynamic system we may use a graphical illustration as the one exhibited in Fig. 1.

The system expressed in Fig. 1 is a completely closed system. All economic activity is here represented as a circulation in and out of certain sections of the system. Some of these sections may best be visualized as receptacles (those are the ones indicated in the figure by circles), others may be visualized as machines that receive inputs and deliver outputs (those are the ones indicated in the figure by squares). There are three receptacles, namely, the forces of nature, the stock of capital goods, and the stock of consumer goods. And there are three machines: the human machine, the machine producing capital goods, and the machine producing consumer goods.

The notation is chosen such that capital letters indicate stocks and small letters flows. For instance, R means that part of land (or other forces of nature) which is engaged in the production of consumer goods, r is the services rendered by R per unit time. Similarly V is the stock of capital goods engaged in the production of consumer goods and v the services rendered by this stock per unit time. Further, a is labour (manual or mental) entering into the production of consumer goods, so that the total input in the production of consumer goods is $r + v + a$.

The complete macro-dynamic problem, as I conceive of it, consists in describing as realistically as possible the kind of relations that exist between the various magnitudes in the Tableau Economique exhibited

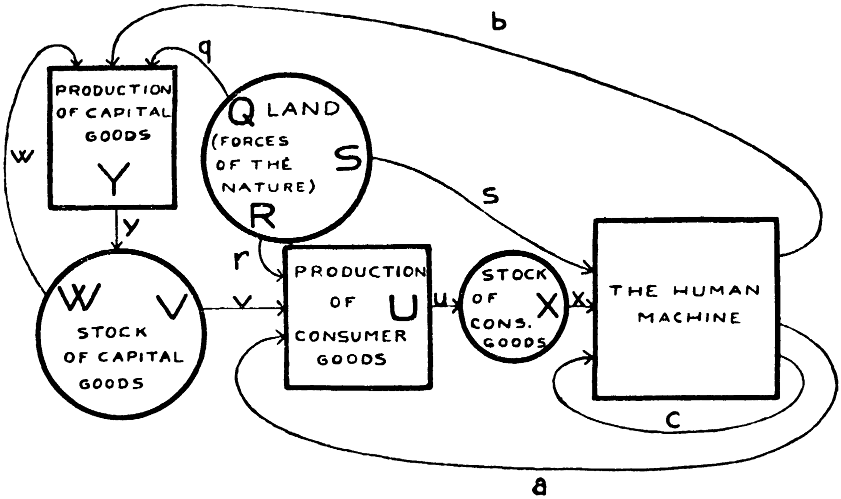
b
q
PRODUCTION OF CAPITAL GOODS
Y
w
Q LAND (FORCES OF THE NATURE)
S
R
s
y
r
W V STOCK OF CAPITAL GOODS
v
PRODUCTION OF U CONSUMER GOODS
u
STOCK OF CONS. GOODS X
x
THE HUMAN MACHINE
c
a

FIG. 1

in Fig. 1, and from the nature of these relations to explain the movements, cyclical or otherwise, of the system. This analysis, in order to be complete, must show exactly what sort of fluctuations are to be expected, how the length of the cycles will be determined from the nature of the dynamic connection between the variables in the Tableau Economique, how the damping exponents, if any, may be derived, etc. In the present paper I shall not make any attempt to solve this problem completely. I shall confine myself to systems that are still more simplified than the one exhibited in Fig. 1. I shall commence by a system that represents, so to speak, the extreme limit of simplification, but which is, however, completely *determinate* in the sense that it contains the same number of variables as conditions. I shall then introduce little by little more complications into the picture, remembering, however, all the time to keep the system determinate. This procedure has one interesting feature: it enables us to draw some conclusions about those properties of the system that may account for the cyclical character of the variations. Indeed, the most simplified cases are characterized by monotonic evolution without oscillations, and it is only by adding certain complications to the picture that we get systems where the theoretical movement will contain oscillations. It is interesting to note at what stage in this hierarchic order of theoretical set-ups the oscillatory movements come in.

3. SIMPLIFIED SYSTEMS WITHOUT OSCILLATIONS

We shall first consider the following case. Let us assume that the yearly consumption is equal to the yearly production of consumers' goods, so that there is no stock of consumers' goods. But let us take account of the stock of fixed capital goods as an essential element of the analysis. The depreciation on this capital stock will be made up by two terms: a term expressing the depreciation caused by the use of capital goods in the production of consumers' goods, and a term caused by the use of capital goods in the production of other capital goods. For simplicity we shall assume that in both these two fields the depreciation on the fixed capital goods employed are proportional to the intensity with which they are used, this intensity being measured by the volume of the output in the two fields. If h and k are the depreciation coefficients in the capital producing industry and in the consumer goods industry respectively, the total yearly depreciation on the nation's capital stock will be $hx + ky$, where x is the yearly production of consumers' goods and y the yearly production of capital goods. Our assumption amounts to saying that h and k are technically given constants.

What will be the forces determining the annual production of capital goods y? There are two factors exerting an influence on y. First, the need to keep up the existing capital stock, replacing the part of it that is worn out. Second, the need for an increase in total capital stock that may be caused by the fact that the annual consumption is increasing. This latter factor is essentially a progression (or degression) factor, and does not exist when consumption is stationary. I shall consider these two factors in turn.

First let us assume that the annual consumption is kept constant at a given level x. How much annual capital production y will this necessitate? This may be expressed in terms of the depreciation coefficients in the following way. Let total capital stock be denoted Z. The rate of increase of this stock will obviously be

$$\dot{Z} = y - (hx + ky) \tag{1}$$

Since the stationary case is characterized by $\dot{Z} = 0$, the stationary levels of x and y must obviously be connected by the relation $y = hx + ky$, i.e.

$$y = mx \tag{2}$$

where
$$m = \frac{h}{1 - k}$$

The constant m represents the *total* depreciation on the capital stock associated with the production of a unit of consumers' goods, when we take account not only of the *direct* depreciation due to the fact that fixed capital is used in the production of consumer goods, but also take account of the fact that fixed capital has to be used in the production of those capital goods that must be produced for replacement purposes. This follows from the way in which (2) was deduced, and it may also be verified by following the depreciation process for an infinite number of steps backwards. Indeed, the production of x causes a direct depreciation of hx. In order to replace these hx units of capital, a further depreciation of khx is caused, and this amount has to be added to the annual capital replacement production. But adding the amount khx to the annual capital production means that the annual depreciation is increased by $k\,.\,(khx) = k^2hx$, which also has to be added to the annual capital production, and so on. Continuing in this way, we find that the total annual capital production needed to maintain the constant consumption x (with no change in the total capital stock) is equal to

$$hx + khx + k^2hx + \ldots = \frac{h}{1 - k}x = mx$$

which is formula (2). For this reason m may be called the *total*, h and k the *partial* depreciation coefficients.

Now let us consider the other factor that effects the annual capital production, namely, the *change* $\dot{x}$ in the annual production of consumption goods.

Let us take a simple example. Suppose that a capital stock of 1,000 units is needed in order to produce a yearly national income (i.e. a yearly national consumption) equal to 100 units, then if the production of consumer goods rests stationary at a level of 100 units per year, it is only necessary to produce each year enough capital goods to replace the capitals worn out, namely, $m \, . \, 100$, m being the constant in (2).

But if there is in a given year an *increase*, say, of 5 units, in the production of consumer goods, then it is necessary during that year to increase the stock of capital goods. Indeed, in order to maintain a yearly production of consumer goods equal to 105, there is needed a capital stock equal to 1,050. During the year in question it is therefore necessary to produce an additional 50 units of capital goods. We are thus led to assume that the yearly production of capital goods can be expressed in a form where there occurs not only the term (2) but also a term that is proportional to $\dot{x}$, i.e. y will be of the form

$$(3) \qquad y = mx + \mu\dot{x}$$

where m and μ are constants. The constant m expresses the wear and tear on capital goods caused directly and indirectly by the production of one unit of consumption, and μ expresses the size of capital stock that is needed directly and indirectly in order to produce one unit of consumption per year. In other words, μ is the total "production coefficient," in the Walrasian sense, for the factor capital.

The two influences expressed by the two terms in (3) have been the object of a certain discussion in the literature which ought to be mentioned here. Professor Wesley C. Mitchell, in one of his studies, observed that the maximum in the production of capital goods preceded the maximum in the production of consumer goods (or, which amounts to the same, the sales of consumer goods if stock variations of consumer goods are disregarded). From this he drew the conclusion that it is rather in production than in consumption we ought to look for the factors that can explain the turning-point of the cycle. Professor J. M. Clark objected to this conclusion. He said that the *rate of increase* of consumption exerts a considerable influence on the production of capital goods, and that the movement of this rate of increase precedes the movement of the absolute value of the consumption. Indeed, during a cyclical movement the rate of increase will be the highest, about one-quarter period before the maximum point is reached in the quantity itself.

The effect which Clark had in mind is obviously the effect which we have expressed by the second term in (3). If we think only of this term, disregarding the first term, we will have the situation where y is simply proportional to the rate of increase of x. If the movement is cyclical, we would consequently have a situation as the one exhibited in Fig. 2.

In Fig. 2 we notice that the peak in consumption comes after the peak in capital production, but if we compare production with the *rate of increase* of consumption, we find that there is synchronism: the maximum rate of increase in consumption occurs at the same moment as the peak in the actual size of capital production. The fact observed by Mitchell can, therefore, just as well be explained—as Clark did—by saying that it is consumption which exerts an influence on production. This is an interesting observation, and it is correct if taken only as an expression for *one* of the factors influencing production.*

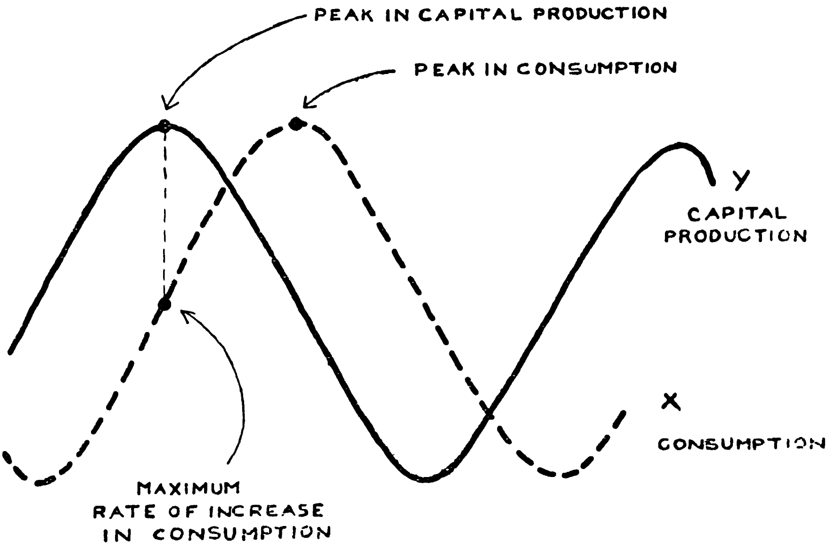
PEAK IN CAPITAL PRODUCTION
PEAK IN CONSUMPTION
Y
CAPITAL PRODUCTION
X
CONSUMPTION
MAXIMUM RATE OF INCREASE IN CONSUMPTION

FIG. 2

In order to have a complete and correct picture we must, however, take account of both terms in (3), and we must also look for some other relation between our variables. So far the problem is not yet determinate.

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* Clark, in his discussion of this question, went further than this. He tried to prove that the fact here considered could by itself explain the turning-point of the business cycle, but this is not correct. Indeed, equation (3) is only one equation between two variables. Consequently many types of evolutions are possible. See the discussion between Professor Clark and the present author in the *Journal of Political Economy*, 1931–32.

In order to make the problem determinate we need to introduce an equation expressing the behaviour of the consumers. We shall do this by introducing the Walrasian idea of an *encaisse désirée.* This notion will be introduced here only as a parameter by means of which we express a certain feature of the behaviour of the consumers. The parameter is going to be introduced in the equations and then eliminated. Its introduction, therefore, does not mean that we are actually elaborating a monetary theory of business cycle. It is only an intermediary parameter introduced in order to enable the formulation of a certain simple hypothesis.

The *encaisse désirée*, the need for cash on hand, is made up of two parts: cash needed for the transaction of consumer goods and producer goods respectively. The first of these parts may of course always be written as a certain factor r times the sale of consumer goods, and the second part as a certain factor s times the production of capital goods, provided the factors r and s are properly defined. In other words, the *encaisse désirée* ω may be written

$$\omega = rx + sy \tag{4}$$

As a first approximation one may perhaps consider r and s as constants given by habits and by the nature of existing monetary institutions.

When the economic activity both in consumer goods and in producer goods production increase, as they do during a period of expansion, the *encaisse désirée* will increase, but the total stock of money, or money substitutes, cannot be expanded *ad infinitum* under the present economic system. There are several reasons for this: limitations of gold supply, the artificial rigidity of the monetary systems, psychological factors, and so on. We do not need to discuss in detail the nature of these limiting factors. We simply assume that, as the activity and consequently the need for cash increases, there is created a *tension* which counteracts a further expansion. This tension is measured by the expression (4). It seems plausible that one effect of the tightening of the cash situation, and perhaps the most important one, will be a restriction in consumption. In the boom period when consumption has reached a high level (in many cases it has extended to pure luxuries), consumption is one of the elastic factors in the situation. It is likely that this factor is one that will yield first to the cash pressure. To begin with this will only be expressed by the fact that the rate of increase of consumption is slackened. Later, consumption may perhaps actually decline. Whatever this final development it seems plausible to assume that the *encaisse désirée* ω will enter into the picture as an important factor which, when increasing, will, after a certain point, tend *to diminish the rate of increase* of consumption. Assuming as a first approximation the relationship to be linear, we have

$$\dot{x} = c - \lambda\omega \tag{5}$$

where c and λ are positive constants. The constant c expresses a tendency to maintain and perhaps expand consumption, while λ expresses the reining-in effect of the *encaisse désirée.*

Introducing into (5) the expression for the *encaisse désirée* taken from (4), we get

$$\dot{x} = c - \lambda(rx + sy) \tag{6}$$

This equation we shall call the consumption equation.

The two equations (3) and (6) form a determinate system in the two variables x and y. If the parameters μ, m, λ, etc., are constants, the system may easily be solved in explicit form. By doing so we see that the system is too simple to give oscillations. Indeed, by eliminating $\dot{x}$ between (3) and (6) we get a linear relation between x and y. Expressing one of the variables in terms of the others by means of this relation and inserting in one of the two equations (3) or (6) we get a linear differential equation in a single variable. The characteristic equation is consequently of degree one, and has therefore only one single real root. This means that the variables will develop monotonically as exponential functions. In other words, we shall have a secular trend but no oscillations.*

The system considered above is thus too simple to be able to explain developments which we know from observation of the economic world. There are several directions in which one could try to generalize the set-up so as to introduce a possibility of producing oscillations. One idea would be to distinguish between saving and investment. The fact that, in an actual situation, there is a difference between these two factors will tend to produce a depression or an expansion. This is Keynes' point of view. It would be exceedingly interesting to see what sort of evolution would follow if such a set of hypotheses were subject to a truly dynamic and determinate analysis.

Another way of generalizing the set-up would be to introduce the fact that the existence of debts exerts a profound influence on the behaviour of both consumers and producers. This is the leading idea of Irving Fisher's approach to the business cycle problem.

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* Incidentally this shows that the fact pointed out by Clark does not necessarily lead to a development giving a turning-point.

A third direction would be to introduce the Marxian idea of a bias in the distribution of purchasing power. This idea may—with a slight change of emphasis—be expressed by saying that under private capitalism production will not take place unless there is a prospect of profit, and the existence of profits tends to create a situation where those who have the consumption power do not have the purchasing power, and *vice versa*. Thus, under private capitalism, production must more or less periodically kill itself.

A fourth direction would be the introduction of Aftalion's point of view with regard to production. The essence of this consists in making a distinction between the quantity of capital goods whose production is *started* and the activity needed in order to *carry to completion* the production of those capital goods whose production was started at an earlier moment. The essential characteristics of the situation that thus arises are that the activity at a given moment does not depend on the decisions taken at that moment, but on decisions taken at earlier moments. By this we introduce a new element of discrepancy in the economic life that may provoke cyclical oscillations. I do not think that Aftalion's analysis as originally presented by himself can be characterized as a determinate analysis. By putting his arguments into equations one will find that he does not have as many equations as unknowns. But his idea with regard to production is very interesting, and, if properly combined with other ideas, will lead to a determinate system. Not only that, but it may lead to a system giving rise to oscillations. I now proceed to the discussion of such a system.

4. A MACRO-DYNAMIC SYSTEM GIVING RISE TO OSCILLATIONS

Let y_t be the quantity of capital goods whose production is *started* at the point of time t. We shall call y_t the "capital starting" or the "production starting," and we shall assume that this magnitude is determined by an equation of the form (3.3). A capital object whose production is started at a certain moment will necessitate a certain production activity during the following time in order to complete the object. The productive activity needed in the period following the starting of the object will, as a rule, vary in a certain fashion which we may, as a first approximation, consider as given by the technical conditions of the production. Let D_τ be the amount of production activity needed at the point of time $t + \tau$ in order to carry on the production of a unit of capital goods started at the point of time t. The function D_τ we shall call the "advancement function."

This being so, the amount of production work that will be going on at the moment t will be

$$z_t = \int_{\tau=0}^{\infty} D_\tau y_{t-\tau} d\tau \tag{1}$$

The magnitude z_t we shall call "the carry-on-activity" at the point of time t.

In the formula of the *encaisse désirée* it is now z that will occur instead of y, so that the consumption equation will be

$$\dot{x} = c - \lambda(rx + sz) \tag{2}$$

where c, λ, r and s are constants.

The three equations (3.3), (1) and (2) form now a determinate system in the three variables x, y and z.

If the carry-on function D_τ is given, the above system may be solved. If D_τ is given only in numerical form, the system has to be solved numerically, taking for granted a certain set of initial conditions. If D_τ is given as a simple mathematical expression, the system may under certain conditions be solved in explicit form. As an example we shall assume

$$D_\tau = \begin{cases} 1/\epsilon & 0 < \tau < \epsilon \\ 0 & \tau \gtreqless \epsilon \end{cases} \tag{3}$$

where ϵ is a technically given constant. This simply means that a given element of capital starting will cause a certain constant amount of carry-on-activity per unit time over the ϵ units of time following the starting, and that in this point the object is finished, so that no further carry-on-activity is needed. This is obviously a simplified assumption, but may perhaps be taken as a first approximation.

In this case we get from (1) by differentiating with respect to time

$$\epsilon \dot{z}_t = y_t - y_{t-\epsilon} \tag{4}$$

For certain purposes it will be convenient to differentiate also the equation (2) in order to get rid of the constant term, which gives

$$\ddot{x} = - \lambda(r\dot{x} + s\dot{z}) \tag{5}$$

The three equations to be considered now are (2), (3.3) and (4) (or possibly (5) may replace (2)). This is a mixed system of differential and difference equations. It is therefore to be expected that the solution will depend, not only on the initial conditions of the system in a given *point* of time, as initial conditions we shall have to consider the shape of the curve over a whole interval of length ϵ.

We shall in particular investigate whether the system is satisfied if each of the variables is assumed to be made up of a number of *components*, each component being either an exponential or a damped oscillation, i.e. a damped sine curve. It is easier to handle the formulae if each such term is written in the complex exponential form, that is to say in the form

$$a_1 e^{(-\beta+i\alpha)t} + a_2 e^{(-\beta-i\alpha)t} \qquad i = \sqrt{-1} \tag{6}$$

where a_1 and a_2 are constants. For brevity we may write (6)

$$a_1 e^{\rho_1 t} + a_2 e^{\rho_2 t} \tag{7}$$

where ρ_1 and ρ_2 are complex numbers.

This applies to a single component. Considering now several components in each variable, we may express the above assumption by saying that the variables x, y and z considered as time series are of the form

$$\begin{cases} x = a_* + \Sigma_k a_k e^{\rho_k t} \\ y = b_* + \Sigma_k b_k e^{\rho_k t} \\ z = c_* + \Sigma_k c_k e^{\rho_k t} \end{cases} \tag{8}$$

where ρ_k are complex or real constants, and where a, b and c are also constants. By convention we let the numbering in (8) run $k = 0, 1, 2 \ldots$ Does there exist a set of functions of the form (8) which satisfy the system consisting of the equations (3.3), (2) and (4)? Such functions do exist. The exponential characteristics ρ_k of these functions are determined by the structural constants ϵ, λsm, $\lambda s\mu$, λr that enter into the system considered. On the contrary, the coefficients a, b and c in (8) will depend on the initial conditions.

It is easy to verify this and to determine how the exponential characteristics ρ_k depend on the structural constants. This is done by differentiating the various expressions in (8) and inserting the results obtained into the equations of the system. If this is done, one will find that the coefficients a, b and c must satisfy the relations

$$(9) \qquad \begin{cases} \dfrac{c_k}{a_k} = -\dfrac{\lambda r + \rho_k}{\lambda s} \\[2ex] \dfrac{b_k}{a_k} = m + \mu\rho_k \\[2ex] \dfrac{c_k}{b_k} = \dfrac{1 - e^{-\epsilon\rho_k}}{\epsilon\rho_k} \\[2ex] (k = 0, 1, 2 \ldots) \end{cases}$$

This condition entails that all the ρ_k must be roots of the following characteristic equation:

$$(10) \qquad \frac{\epsilon\rho}{1 - e^{-\epsilon\rho}} = -\lambda s \frac{m + \mu\rho}{r\lambda + \rho}$$

This equation may have complex or real roots. For the numerical computation it is therefore convenient to insert into (10)

$$(11) \qquad \rho = -\beta + i\alpha \qquad i = \sqrt{-1}$$

and to separate the real and imaginary parts of the equation after having cleared the equation of fractions. Doing this, we get the following two equations to determine α and β (assuming ϵ and $\lambda s\mu \neq 0$).

$$(12) \qquad 1 + \lambda s\mu e^{\epsilon\beta} \frac{\sin \epsilon\alpha}{\epsilon\alpha} = \frac{m\frac{\epsilon^2}{\mu^2}(m - \lambda r\mu)}{\left(\epsilon\beta - m\frac{\epsilon}{\mu}\right)^2 + (\epsilon\alpha)^2}$$

$$(13) \qquad -\frac{\epsilon\beta - \lambda r\epsilon + m\frac{\epsilon}{\mu}}{\epsilon\beta - m\frac{\epsilon}{\mu}} + \lambda s\mu \frac{1 - e^{\epsilon\beta}\cos \epsilon\alpha}{\epsilon\beta - m\frac{\epsilon}{\mu}} = \frac{m\frac{\epsilon^2}{\mu^2}(m - \lambda r\mu)}{\left(\epsilon\beta - m\frac{\epsilon}{\mu}\right)^2 + (\epsilon\alpha)^2}$$

The terms of these equations have been ordered in the particular form indicated in order to facilitate the numerical solution.

The roots (β, α) of these two equations will determine the shape of the time curves x, y and z. It is obvious from (12) and (13) that if (β, α) is a root, then (β, $-\alpha$) will also be a root. In other words, if complex roots occur they will be conjugate, which means that the corresponding component of x, y and z will actually be a damped sine curve. If there exists a magnitude β such that $(\beta, 0)$ is a root, then the corresponding component will be a secular trend in the form of an exponential.

In order to study the nature of the solutions, I shall now insert for the structural coefficients ϵ, μ, m, etc., numerical values that may in a rough way express the magnitudes which we would expect to find in actual economic life. At present I am only guessing very roughly at these parameters, but I believe that it will be possible by appropriate statistical methods to obtain more exact information about them. I think, indeed, that the statistical determination of such structural parameters will be one of the main objectives of the economic cycle analysis of the future. If we ask for a real *explanation* of the movements, this type of work seems to be the indispensable complement needed in order to co-ordinate and give a significant interpretation to the huge mass of empirical descriptive facts that have been accumulated in cycle analysis for the past ten or twenty years.

Let us first consider the constant ϵ. It expresses the total length of time needed for the completion of big units of fixed capital: big industrial plants, water-power plants, railways, big steamers, etc. This span of time includes not only the actual time needed for the technical construction (the erection of the buildings, etc.) but also time needed for the planning and organization of the work. Indeed, the variable τ in (1) is measured from the moment when the initiative was taken. In many cases the items planning and organization takes more time than the actual technical construction.

It seems that we would strike a fair average if we say that the actual production activity needed in order to complete a typical plant of the above-mentioned kind will be distributed over time in such a way that in general it takes place around three years after the planning began. Some work will of course frequently be done before and some after this time, but three years can, I believe, tentatively be taken as an average. In making this guess I have taken account of an important factor that tends to pull the average up, namely, the fact that in a given individual case the activity will as a rule not be distributed evenly over the period (as assumed in the simplified theoretical set-up) but the peak activity will be concentrated near the *end* of the period. If three years is taken as the *average* lag of the various elements of production activity after the beginning of the planning, we shall have to put $\epsilon = 6$ in (3), and consequently in (4), indeed in the case of equal distribution, as assumed in (3), the *average* lag will be half the *maximum* lag.

Furthermore, let us put $\mu = 10$, which means that the total capital stock is ten times as large as the annual production. Further, let us put $m = 0 \cdot 5$, which means that the direct and indirect yearly depreciation on the capital stock caused by its use in the production of the national income is one-half of that income, i.e. 20 % of the capital stock. Finally, let us put $\lambda = 0 \cdot 05$, $r = 2$, and $s = 1$. These latter constants, which represent the effect of the *encaisse désirée* on the acceleration of consumption, are of course inserted here by a still rougher estimate than the first constants. There is, however, reason to believe that these latter constants will not affect very strongly the length of the cycles obtained (see the computations below).

Inserting these values in the two characteristic equations (12) and (13) we get a numerical determination of the roots. In the actual computation it was found practical to introduce $\epsilon\alpha$ and $\epsilon\beta$ as the unknowns looked for. By so doing, and utilizing an appropriate system of graphical and numerical approximation procedures, the roots may be determined without too much trouble. A good guidance in the search for roots is the fact that the solutions in α are approximately the minimum points of the function

$$\frac{\sin \epsilon\alpha}{\epsilon\alpha} \tag{14}$$

that is to say, a first approximation to the frequencies α will be every other of the roots of the equation

$$tg\epsilon\alpha = \epsilon\alpha \tag{15}$$

The roots of this equation are well known and tabulated.* The results of the computations are given in the first columns of Table 1.

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* The above characteristic equation was worked out and the roots numerically determined by Mr. Harald Holme and Mr. Chr. Thorbjörnsen, assistants at the University Institute of Economics. In brief the following procedure was used: The right member of equations (12) and (13) was put equal to a parameter q, and (12) solved with respect to $\epsilon\beta$, and (13) with respect to $\cos \epsilon\alpha$. From (15) a first approximation to α was determined and the corresponding β taken as the value determined by putting $q = 0$ in (12). This value of β was as a rule immediately corrected by using (12) with the value of q that followed from the above preliminary determination of α and β. This gave a new value of q that was inserted in (13), thus determining a new value of α. Starting from this new value of α the whole process was iterated. This method gave good results except for very small values of λ, in which case it was found better to start by guessing at the value of β.

TABLE I

CHARACTERISTIC COEFFICIENTS OF THE COMPONENTS OBTAINED

			Trend ($j = 0$)	Primary Cycle ($j = 1$)	Secondary Cycle ($j = 2$)	Tertiary Cycle ($j = 3$)
Frequency	.. ..	α	$\rho_0 = -$ 0·08045	0·73355	1·79775	2·8533
Period	.. ..	$p = \frac{2\pi}{\alpha}$		8·5654	3·4950	2·2021
Damping exponent	.. .. ..	β		0·371335	0·5157	0·59105
Damping factor per period	.. ..	$e^{-2\pi\beta/\alpha}$		0·0416	0·1649	0·2721
Consumption x	Amplitude ..	A	$-$ 0·32	0·6816	0·27813	0·17524
	Phase	ϕ		0	0	0
Production starting y	Amplitude ..	B	0·09744	5·4585	5·1648	5·0893
	Phase	ψ		1·9837	1·8243	1·7582
Carry-on-activity z	Amplitude ..	C	0·12512	$-$ 10·662	$-$ 10·264	$-$ 10·147
	Phase	θ		1·9251	1·7980	1·7412

The first component ($j = 0$) is a trend, which in all the three variables x, y and z is composed of an additive constant and a damped exponential term. We may write these trends in the form

$$(16) \qquad \begin{cases} x_0(t) = a_* + a_0 e^{\rho_0 t} \\ y_0(t) = b_* + b_0 e^{\rho_0 t} \\ z_0(t) = c_* + c_0 e^{\rho_0 t} \end{cases}$$

These expressions are nothing but the first terms in the composite expressions (8). The damping exponent ρ_0 is the first root of the characteristic equation, it is real and negative $\rho_0 = -0{\cdot}08045$ (see Table 1). The additive constants a_*, b_* and c_* are also determined by the structural coefficients ϵ, λsm, etc. Indeed, if $t \to \infty$ the functions (16) will approach the stationary levels a_*, b_* and c_*. Since the derivatives will vanish in this stationary situation, we get from (3.3), (1) and (2)

$$(17) \qquad b_* = ma_* \qquad c_* = b_* \qquad \lambda ra_* + \lambda sc_* = c$$

putting as an example $c = 0{\cdot}165$ this determines uniquely the three constants $a_* = 1{\cdot}32$, $b_* = 0{\cdot}66$, and $c_* = 0{\cdot}66$.

The coefficients a_0, b_0 and c_0 are not determined uniquely by the structural coefficients, but one initial condition may be imposed on them—for instance, a condition that determines a_0. When a_0 is determined, b_0 and c_0 follow from (9). If, as a numerical example, we impose the condition that x_0 shall be unity at origin, we get the functions x_0, y_0, z_0 in (23a).

Besides the secular trend, there will be a primary cycle with a period of 8·57 years, a secondary cycle with a period of 3·50 years, and a tertiary cycle with a period of 2·20 years (see Table 1). These cycles are determined by the first, second and third set of conjugate complex roots of (10). These sets are denoted $j = 1, 2, 3$ in Table 2. There will also be shorter cycles corresponding to further roots of (10), but I shall not discuss them here.

The presence of these cycles in the solution of our theoretical system is of considerable interest. *The primary cycle of 8·57 years corresponds nearly exactly to the well-known long business cycle.* This cycle is seen most distinctly in statistical data from the nineteenth century, but it is present also in certain data from the present century; in the most recent data it actually seems to come back with greater strength.

Furthermore, the secondary cycle obtained is 3·50 years, which corresponds nearly exactly to the short business cycle. This cycle is seen most distinctly in statistical data from this century, but it is present also in older series. As better monthly data become available back into the nineteenth century the short cycle will become quite evident also here I believe.

The lengths of the cycles here considered depend, of course, on all the structural coefficients; but it is only ϵ that is of great importance. The other coefficients only exert a very small influence on the length of the cycles. Choosing, for instance, $\lambda = 0 \cdot 1$, $s = 1$, $r = 2$, $\mu = 5$, and different values for m, we find

m	Period p	Damping Factor $e^{-2\pi\beta/\alpha}$
0·7	8·53	0·042
0·5	8·43	0·043
0·0	8·20	0·048

In other words, even an extreme variation in the total depreciation factor m leaves both the period and the damping factor nearly unchanged.

A change in the constant λ that expresses the "reining-in" effect of the *encaisse désirée* exerts a considerable influence on the damping factor, but a relatively small influence on the length of the period. For $\lambda = 0 \cdot 001$, $s = 1$, $r = 2$, $\mu = 5$ and $m = 0 \cdot 5$, we find, for instance, $p = 10 \cdot 6$ years, $e^{-2\pi\beta/\alpha} = 0 \cdot 000002$. In other words, the period is still of the same order of magnitude, but the damping is now enormous, the amplitude being brought down to two-millionth in the course of one period. This means that the cycle in question is virtually non-existing.

It is interesting to interpret the last result in the light of the limiting case where $\lambda = 0$, i.e. where the need for cash as a brake on the development of production is eliminated. In this case it follows immediately from (2) that x will evolve as a straight line with *positive* inclination (c being assumed positive). Hence by (3.3) y must also be a straight line, and by (4) $\dot{z}$ must be a constant, hence z linear. The movement of the system will consequently be a steady evolution towards higher levels of consumption and production without the set-backs caused by depressions.

Of course, the results here obtained with regard to the length of the periods and the intensity of the damping must not be interpreted as giving a final explanation of business cycles; in particular it must be investigated if the same types of cycles can be explained also by other sets of assumption, for instance, by assumptions about the saving-investment discrepancy, or by the indebtedness effect, etc. Anyhow, I believe that the results here obtained, in particular those regarding the length of the primary cycle of 8½ years and the secondary cycle of 3½ years, are not entirely due to coincidence but have a real significance.

I want to go one step further: I want to formulate the hypothesis that if the various statistical production or monetary series that are now usually studied in connection with business cycles are scrutinized more thoroughly, using a more powerful technique of time series analysis, *then we shall probably discover evidence also of the tertiary cycle, i.e. a cycle of a little more than two years.*

Now let us consider the other features of the cycles: phase, etc. We write the various cyclical components

$$(18) \qquad \begin{cases} x_j(t) = A_j e^{-\beta_j t} \sin(\phi_j + \alpha_j t) \\ y_j(t) = B_j e^{-\beta_j t} \sin(\psi_j + \alpha_j t) \\ z_j(t) = C_j e^{-\beta_j t} \sin(\theta_j + \alpha_j t) \\ \quad (j = 1, 2 \ldots) \end{cases}$$

$j = 1$ means the primary cycle, $j = 2$ the secondary cycle, etc. The frequencies α and the damping coefficients β are uniquely determined by the characteristic equation, but the phases ϕ, ψ, θ and the amplitudes A, B, C are influenced by the initial conditions. For the primary cycle ($j = 1$) two such conditions may be imposed. We may, for instance, require that $x_1(0) = 0$ and $\dot{x}_1(0) = \frac{1}{2}$. This leads to $\phi_1 = 0$, $A_1 = \frac{1}{2\alpha_1}$. And when the phase and amplitude for the primary cycle in x is thus determined, the phases and amplitudes of the primary cycles in y and z follow by virtue of (9). Similarly, if ϕ_2 and A_2 are determined by two initial conditions imposed on the secondary cycle in x, for instance, by the conditions $x_2(0) = 0$ and $\dot{x}_2(0) = \frac{1}{2}$, the phases and amplitudes of the secondary cycles in y and z are also determined by (9).

When the conditions (9) are formulated in terms of phases and amplitudes, we get

$$(19)\qquad \begin{cases} B\sin(\psi-\phi)=A\mu\alpha \\ B\cos(\psi-\phi)=A(m-\mu\beta) \end{cases}$$

$$(20)\qquad \begin{cases} C\sin(\theta-\phi)=-\dfrac{A\alpha}{\lambda s} \\ C\cos(\theta-\phi)=\dfrac{A(\beta-\lambda r)}{\lambda s} \end{cases}$$

These equations hold good for all the cycles, that is, for $j = 1, 2, 3 \ldots$ They show that the lag between x, y and z are independent of the initial conditions and depend only on the structural coefficients of the system. From (18) and (19) we get indeed

$$(21)\qquad \begin{cases} tg(\psi-\phi)=\dfrac{\mu\alpha}{m-\mu\beta} \\ tg(\theta-\phi)=-\dfrac{\alpha}{\beta-\lambda r} \end{cases}$$

Similarly the relations between the amplitudes may be reduced to

$$(22)\qquad \begin{cases} |B|=\sqrt{(\mu\alpha)^2+(m-\mu\beta)^2}\cdot|A| \\ |C|=\dfrac{\sqrt{\alpha^2+(\beta-\lambda r)^2}}{\lambda s}\cdot|A| \end{cases}$$

where the square roots are taken positive. If the amplitudes are taken positive, $\sin(\psi-\phi)$ has the same sign as $\mu\alpha$ and $\sin(\theta-\phi)$ the same sign as $-\alpha/\lambda s$.

A given set (18) (for a given j) does not—taken by itself—satisfy the dynamic system consisting of (3.3), (2) and (4). It will do so only if the structural constant $c = 0$. If $c \neq 0$ the constant terms a_*, b_* and c_* must be added to (18) in order to get a correct solution. If these constant terms are added, we get functions that satisfy the dynamic system, and that have the property that any linear combination of them (with constant coefficients) satisfy the dynamic system provided only that the sum of the coefficients by which they are linearly combined is equal to unity. This proviso is necessary because any sets of functions that shall satisfy the dynamic system must have the uniquely determined constants a_*, b_* and c_*.

The sets (18), with no constants a_*, b_* and c_* added, are solutions of the system obtained by leaving out c in (2). Or, again, (18) may be looked upon as solutions of the system obtained by letting (5) replace (2).

If we impose on the trends the initial condition that x_0 shall be unity at origin, and on each cycle in x the condition that it shall be zero at origin and with velocity $= \frac{1}{2}$, we get the functions in (23a, b, c, d). The corresponding cycles are represented in Figs. 3–5.

$$\begin{cases} x_0 = 1 \cdot 32 - 0 \cdot 32e^{-0 \cdot 08045t} \\ y_0 = 0 \cdot 66 + 0 \cdot 09744e^{-0 \cdot 08045t} \\ z_0 = 0 \cdot 66 + 0 \cdot 12512e^{-0 \cdot 08045t} \end{cases} \tag{23a}$$

$$\begin{cases} x_1 = 0 \cdot 6816e^{-\beta_1 t} \sin \alpha_1 t \\ y_1 = 5 \cdot 4585e^{-\beta_1 t} \sin (1 \cdot 9837 + \alpha_1 t) \\ z_1 = -\ 10 \cdot 662e^{-\beta_1 t} \sin (1 \cdot 9251 + \alpha_1 t) \end{cases} \tag{23b}$$

$$\begin{cases} x_2 = 0 \cdot 27813e^{-\beta_2 t} \sin \alpha_2 t \\ y_2 = 5 \cdot 1648e^{-\beta_2 t} \sin (1 \cdot 8243 + \alpha_2 t) \\ z_2 = -\ 10 \cdot 264e^{-\beta_2 t} \sin (1 \cdot 7980 + \alpha_2 t) \end{cases} \tag{23c}$$

$$\begin{cases} x_3 = 0 \cdot 17524e^{-\beta_3 t} \sin \alpha_3 t \\ y_3 = 5 \cdot 0893e^{-\beta_3 t} \sin (1 \cdot 7582 + \alpha_3 t) \\ z_3 = -\ 10 \cdot 147e^{-\beta_3 t} \sin (1 \cdot 7412 + \alpha_3 t) \end{cases} \tag{23d}$$

(The α and β are given in Table 1.)

From the constants given in Table 1, and from the shape of the curves in Figs. 3–5, we see that the shorter cycles are not so heavily damped as the long cycle. Furthermore, we see that the lead or lag between the variables x, y and z is, roughly speaking, the same in the primary, secondary and tertiary cycles. To study the lag it is therefore sufficient to consider only one of these types—for instance, the tertiary cycle (Fig. 5).

Let us first compare consumption with production starting. Apart from the fact that the cycles in Fig. 5 are damped, the relation between x and y is very much the same as in Fig. 2, i.e. production has its peak nearly at the same time as the *rate of change* of consumption is at its highest. The reason for this is that the constant μ in our example is chosen rather large in comparison to m. This means that our example refers to a highly capitalistic society where the annual depreciation is relatively small. By reducing the size of the capital stock in relation to the output (i.e. reducing μ) and increasing the annual depreciation (i.e. m) the peak in production starting will advance so as to arrive nearer the peak in consumption.

Next, comparing consumption with the carry-on-activity, we see that the former is leading by a considerable span of time, i.e. in the depression the carry-on-activity starts to increase only when the upswing in consumption is well under way, and the carry-on-activity continues to increase even after consumption has started to decline.

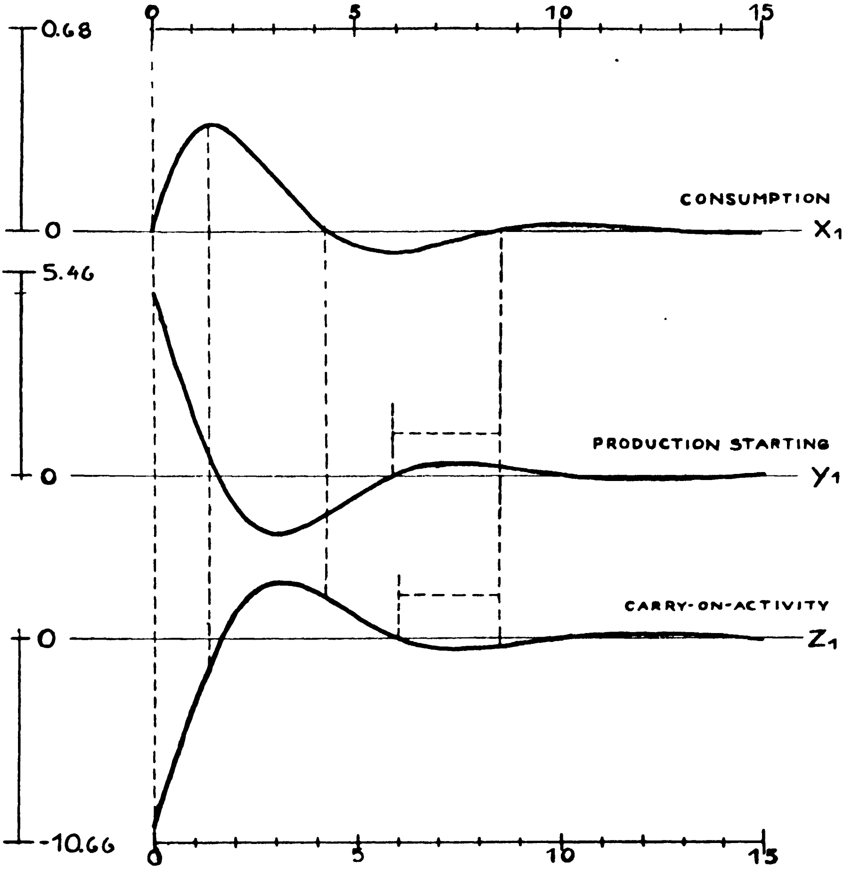
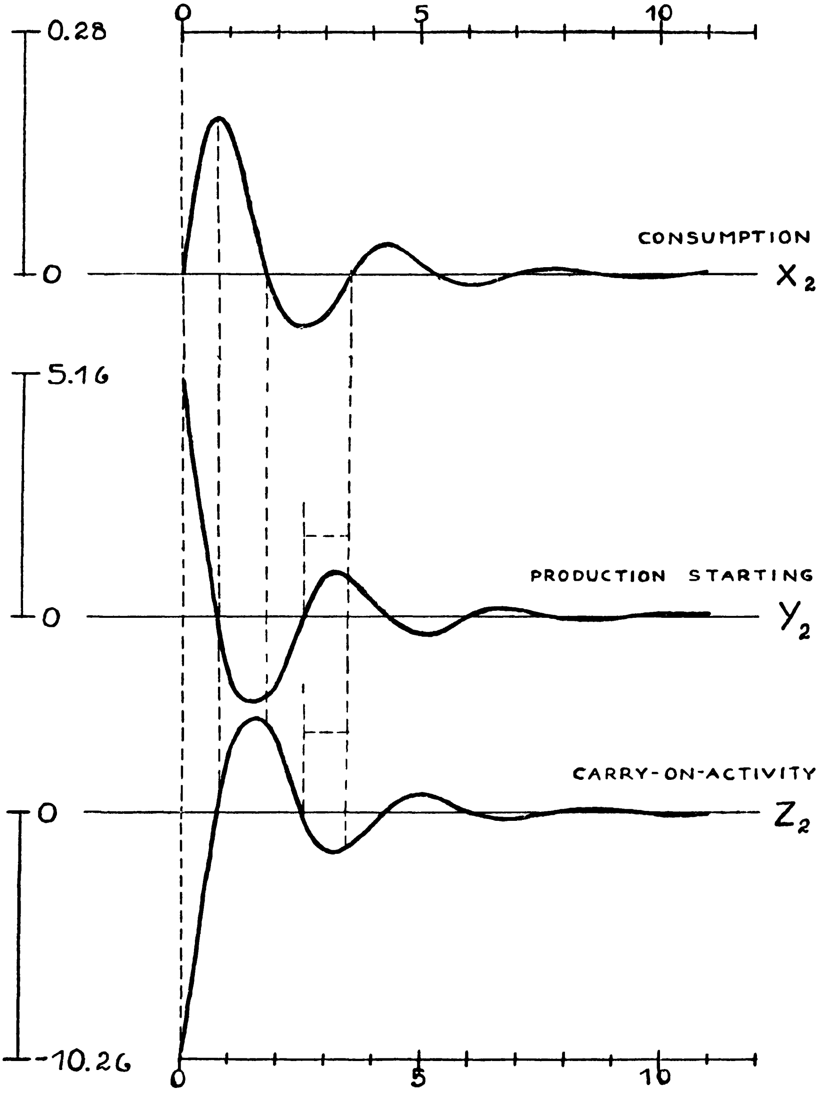


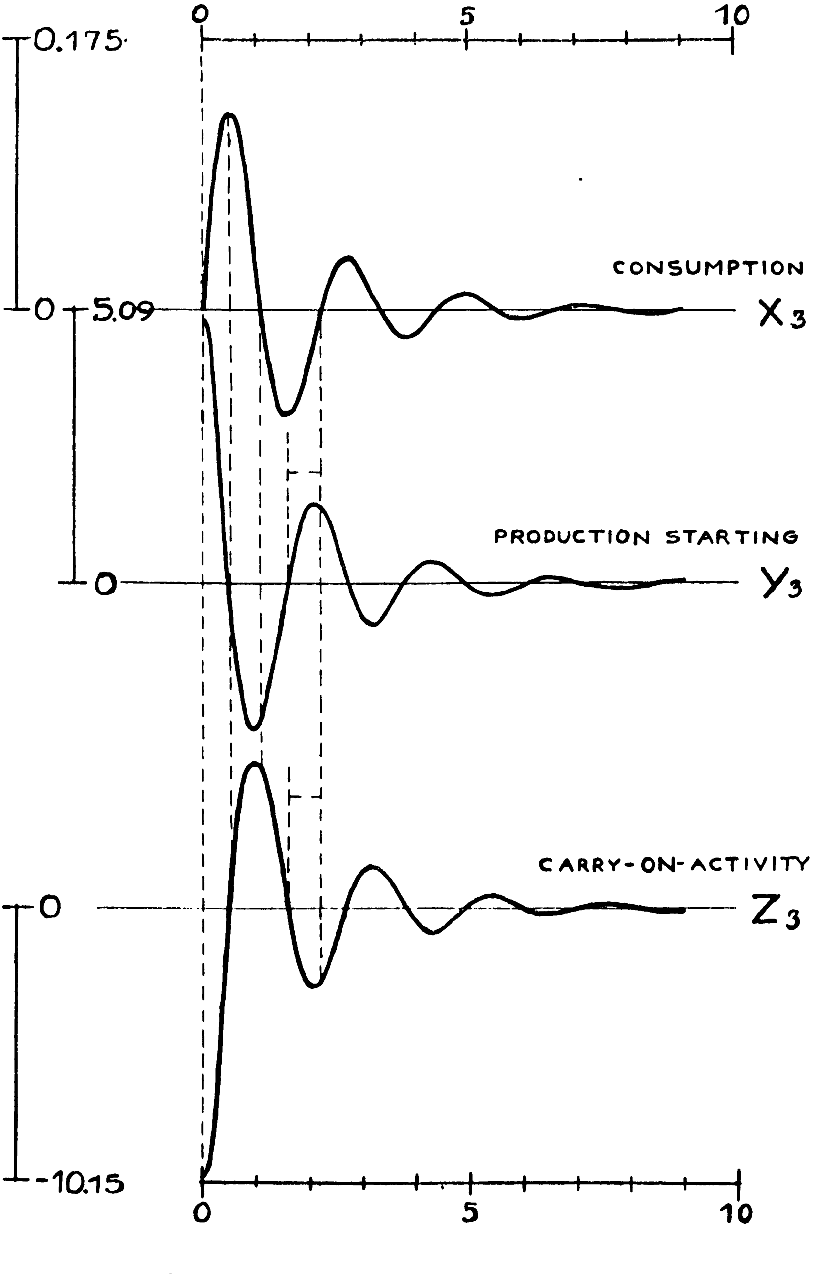
FIG. 3

The way in which the structural relations determine the time shape of the solutions may perhaps be rendered more intuitively by a method of successive numerical approximation.



(FIGURES ON SCALE INDICATE AMPLITUDES)

FIG. 4



(FIGURES ON SCALE INDICATE AMPLITUDES)

FIG. 5

In order to show this, we take for granted that the time shape of one of the curves—for instance, y_1—is known in the interval $-6 < t < 0$. That is to say, in this interval we simply consider the values of y_1 as given by the expression (23*b*). Then we want by the dynamic equations to determine the solutions numerically from the point $t = 0$ and onwards.

TABLE 2

STEP-BY-STEP COMPUTATION OF THE PRIMARY CYCLE

t	x	y	z	$\dot{x}$	$\dot{z}$	y_{t-6}
0	0	5·0000	− 10·000	0·5000	6·4264	− 33·5581
0·16667	0·08333	4·4229	− 8·929	0·4381	6·6811	− 35·6634
0·33333	0·15635	3·8297	− 7·8155	0·3752	6·7865	− 36·8894
0·50000	0·21887	3·2329	− 6·6844	0·3124	6·7592	− 37·3221
0·66667	0·27093	2·6435	− 5·5579	0·2508	6·6153	− 37·0480

TABLE 3

PRIMARY CYCLE COMPUTED DIRECTLY BY FORMULA (23*b*)

t	x	y	z
0	0	5·0000	− 10·0000
0·16667	0·07814	4·4138	− 8·9058
0·33333	0·14581	3·8179	− 7·7817

With the numerical constants ϵ, μ, m, etc., inserted, the dynamic system (where c in (2) is left out) will now be

$$(24) \qquad \begin{cases} y = 0{\cdot}5x + 10\dot{x} \\ \dot{x} = -0{\cdot}1x - 0{\cdot}05z \\ -6\dot{z}_t = y_{t-6} + 0{\cdot}5(x_t + z_t) \end{cases}$$

We shall use (24) for a step-by-step computation. Since $x = 0$ and $\dot{x} = 0{\cdot}5$ are given at the origin, $z = -10$ may be determined from the second equation in (24). Furthermore, since y_{t-6} is given, we may compute $\dot{z}$ in origin by means of the third equation in (24), and finally

y may be computed by the first equation in (24). Thus we have all the items in the first line of Table 2. Since we know x and $\dot{x}$ in origin, we may by a straight linear extrapolation determine x and z in the next point of time, that is to say, in the second line of Table 2. And knowing x and z in this point, we may from the second equation of (24) compute $\dot{x}$. Further, taking the value of y_{t-6} as given also in the next line we can compute $\dot{z}$, etc. In this way we may continue from line to line and determine the development of all the three variables x, y and z. A comparison between the values in Table 2 for x, y and z with the values in Table 3 (determined by the explicit formulae (23*b*) and represented in Fig. 3) will give an idea of the closeness of the approximation obtained by the numerical step-by-step solution.

5. ERRATIC SHOCKS AS A SOURCE OF ENERGY IN MAINTAINING OSCILLATIONS

The examples we have discussed in the preceding sections, and many other examples of a similar sort that may be constructed, show that when an economic system gives rise to oscillations, these will most frequently be damped. But in reality the cycles we have occasion to observe are generally not damped. How can the maintenance of the swings be explained? Have these dynamic laws deduced from theory and showing damped oscillations no value in explaining the real phenomena, or in what respect do the dynamic laws need to be completed in order to explain the real happenings? I believe that the theoretical dynamic laws do have a meaning—much of the reasoning on which they are based are on *a priori* grounds so plausible that it is too improbable that they will have no significance. But they must not be taken as an immediate explanation of the oscillating phenomena we observe. They only form *one* element of the explanation: they solve the propagation problem. But the impulse problem remains.

There are several alternative ways in which one may approach the impulse problem and try to reconcile the results of the determinate dynamic analysis with the facts. One way which I believe is particularly fruitful and promising is to study what would become of the solution of a determinate dynamic system if it were exposed to a stream of erratic shocks that constantly upsets the continuous evolution, and by so doing introduces into the system the energy necessary to maintain the swings. If fully worked out, I believe that this idea will give an interesting synthesis between the stochastical point of view and the point of view of rigidly determined dynamical laws. In the present section I shall discuss this type of impulse phenomena. In the next I shall consider another type which exhibits another—and perhaps equally important—aspect of the swings we observe in reality.

Knut Wicksell seems to be the first who has been definitely aware of the two types of problems in economic cycle analysis—the propagation problem and the impulse problem—and also the first who has formulated explicitly the theory that the source of energy which maintains the economic cycles are erratic shocks.* He conceived more or less definitely of the economic system as being pushed along irregularly, jerkingly. New innovations and exploitations do not come regularly he says. But, on the other hand, these irregular jerks may cause more or less regular cyclical movements. He illustrates it by one of those perfectly simple and yet profound illustrations: "If you hit a wooden rocking-horse with a club, the movement of the horse will be very different to that of the club."

Wicksell's idea on this matter was later taken up by Johan Åkerman, who in his doctorial dissertation† discussed the fact that small fluctuations may be able to generate larger ones. He used, among others, the analogy of a stream of water flowing in an uneven river bed. The irregularities of the river bed will cause waves on the surface. The irregularities of the river bed illustrate in Åkerman's theory the seasonal fluctuations; these seasonals, he maintains, create the longer cycles. Unfortunately Åkerman combined these ideas with the idea of a *synchronism* between the shorter fluctuations and the longer ones. He tried, for instance—in my opinion in vain—to prove that there always goes an exact number of seasonal fluctuations to each minor business cycle. This latter idea is, to my mind, very misleading. It is also, as one will readily recognize, in direct opposition to Wicksell's profound remark about the rocking-horse.

Neither Wicksell nor Åkerman had taken up to a closer mathematical study the *mechanism* by which such irregular fluctuations may be transformed into cycles. This problem was attacked independently of each other by Eugen Slutsky‡ and G. Udny Yule.§

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* See, for instance, his address, "Krisernas gåta," delivered to the Norwegian Economic Society, 1907, *Statsøkonomisk Tidsskrift*, Oslo, 1907, pp. 255–86.

† *Det ekonomiska livets rytmik*, submitted 1925, published Lund, 1928.

‡ *The Summation of Random Causes as the Source of Cyclic Processes*, vol. iii, no. 1, Conjuncture Institute of Moscow, 1927. (Russian with English summary.)

§ *On a Method of Investigating Periodicity in Disturbed Series*, *Trans. Royal Society*, London, A, vol. 226, 1927.

In this connection may also be mentioned a paper by Harold Hotelling.*

Slutsky studied experimentally the series obtained by performing iterated differences and summations on random drawings (lottery drawings, etc.). Yule only used second order differences, but tried to interpret the random impulses concretely as shocks hitting an oscillating pendulum. By the experimental numerical work done by these authors, particularly by Slutsky, it was definitely established that some sort of swings will be produced by the accumulation of erratic influences, but the exact and general law telling us what *sort* of cycles that a given kind of accumulation will create was not discovered.

Later certain mathematical results which are of interest in connection with this problem were given by Norbert Wiener.†

But still the main problem remained, both with regard to the mechanism by which the *time shapes* of the resulting curves are determined and with regard to the concrete economic interpretation. In the present section I shall offer some remarks on these questions. For a more detailed mathematical analysis the reader is referred to a paper to appear in one of the early numbers of *Econometrica*.

Consider for simplicity an oscillating pendulum whose movement is hampered by friction. If y denotes the deviation of the pendulum from its vertical position, the equation governing the movement of the pendulum will be

$$\ddot{y} + 2\beta\dot{y} + (a^2 + \beta^2)y = 0 \tag{1}$$

where $\dot{y}$ and $\ddot{y}$ are the first and second derivatives of y with respect to time, and β and a are positive constants, β expressing the strength of the friction. The equation expresses the fact that the net force acting on the pendulum (and being expressed by the acceleration $\ddot{y}$) is made up of two factors. First a factor which tends to make the force proportional to the deviation y (and of opposite sign). This gives the gross force expressed by the last term of the equation. From this gross force must be subtracted the effect of the friction, and this effect is proportional to the *velocity* $\dot{y}$ and is expressed by the second term of the equation.

It is easily verified that the solution of (1) is a function of the form

$$He^{-\beta t} \sin (\phi + at)$$

where a and β are the constants occurring in (1).

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* *Differential Equations Subject to Error, Journal of the American Statistical Association*, 1927, pp. 283–314.

† *Generalized Harmonic Analysis, Acta Mathematica*, 1930.

The amplitude H and the phase ϕ are determined by the initial conditions. For our present purpose it is convenient to write the solution in such a way that we can see immediately how the initial conditions determine the curve. If y_0 and $\dot{y}_0$ are the values of y and $\dot{y}$ respectively at the point of time $t = t_0$ the solution may be written in the form

$$(2) \qquad y(t) = P(t - t_0) \cdot y_0 + Q(t - t_0) \cdot \dot{y}_0$$

where $P(\tau)$ and $Q(\tau)$ are two functions independent of the initial conditions and defined by

$$(3) \qquad P(\tau) = \frac{\sqrt{a^2 + \beta^2}}{a} e^{-\beta\tau} \sin (v + a\tau)$$

$$(4) \qquad Q(\tau) = \frac{1}{a} e^{-\beta\tau} \sin a\tau$$

where

$$(5) \qquad \sin v = \frac{a}{\sqrt{a^2 + \beta^2}} \qquad \cos v = \frac{\beta}{\sqrt{a^2 + \beta^2}}$$

By convention the square root in (3) and (5) may be chosen positive. By insertion into the equation (1) it is easily verified that (2) is a function that satisfies the equation and the specified initial condition. $P(\tau)$ may be looked upon as the solution of (1), which is equal to unity and whose derivative is equal to zero at the origin $\tau = 0$, and $Q(\tau)$ may be looked upon as the solution which is equal to zero and whose derivative is equal to unity at the origin. These functions satisfy indeed the equation, and we have

$$(6) \qquad \begin{cases} P(0) = 1 & Q(0) = 0 \\ \dot{P}(0) = 0 & \dot{Q}(0) = 1 \end{cases}$$

Suppose that the pendulum starts with the specified initial conditions at the point of time t_0 and that it is hit at the points of time $t_1, t_2 \ldots t_n$ by shocks which may be directed either in the positive or in the negative sense and that may have arbitrary strengths. Let y_k and $\dot{y}_k$ be the ordinate and the velocity of the pendulum immediately before it is hit by the shock number k. The ordinate y_k is not changed by the shock, but the velocity is suddenly changed from $\dot{y}_k$ to $\dot{y}_k + e_k$, where e_k is the strength of the shock; mechanically expressed it is the quantity of motion divided by the mass of the pendulum. The concrete interpretation of the shock e_k does not interest us for the moment. The essential thing to notice is that at the point of time t_k the only thing that happens is that the velocity is increased by a constant e_k. Let us consider separately the effects produced by the two terms $\dot{y}_k$ and e_k. From (2) we see that the initial conditions enter linearly. Consequently we can consider $\dot{y}_k$ and e_k as two independent contributions to the later ordinates of the variable. In other words, the fact of the shock may simply be represented by letting the original pendulum move on undisturbed but letting a *new* pendulum start at the point of time t_k with an ordinate equal to zero and a velocity equal to e_k. This argument may be applied to all the points of time. We simply have to start in each of the points of time $t_1, t_2 \dots t_n$ a new pendulum with an ordinate equal to zero and a velocity equal to the strength of the shock occurring at that moment, and then let all these pendulums continue their undisturbed motion into the future. The sum of the ordinates of all these pendulums at any given point of time t will then be the same as the ordinate $y(t)$ of a single pendulum which has been subject to all the shocks. In other words, the ordinate $y(t)$ will simply be

$$(7) \qquad y(t) = P(t - t_0) \cdot y_0 + Q(t - t_0)\dot{y}_0 + \sum_{k=1}^{n} Q(t - t_k)e_k$$

If the point t is very far from the initial point t_0, and if β is positive so that there is actually a dampening, then the influence of the initial situation y_0 and $\dot{y}_0$ on the ordinate $y(t)$ will be negligible, that is, the ordinate will be

$$(8) \qquad y(t) = \sum_{k=1}^{n} Q(t - t_k) \cdot e_k$$

This means that the ordinate $y(t)$ of the pendulum at a given moment will simply be the *cumulation* of the effects of the shocks, the cumulation being made according to a system of weights. And these weights are simply the shape of the function $Q(\tau)$. That is to say, $y(t)$ is the result of applying a linear operator to the shocks, and *the system of weights in the operator will simply be given by the shape of the time curve that would have been the solution of the determinate dynamic system in case the movement had been allowed to go on undisturbed.*

The fundamental question which arises is, therefore: If we perform a cumulation where the weights have the form $Q(\tau)$, what sort of time

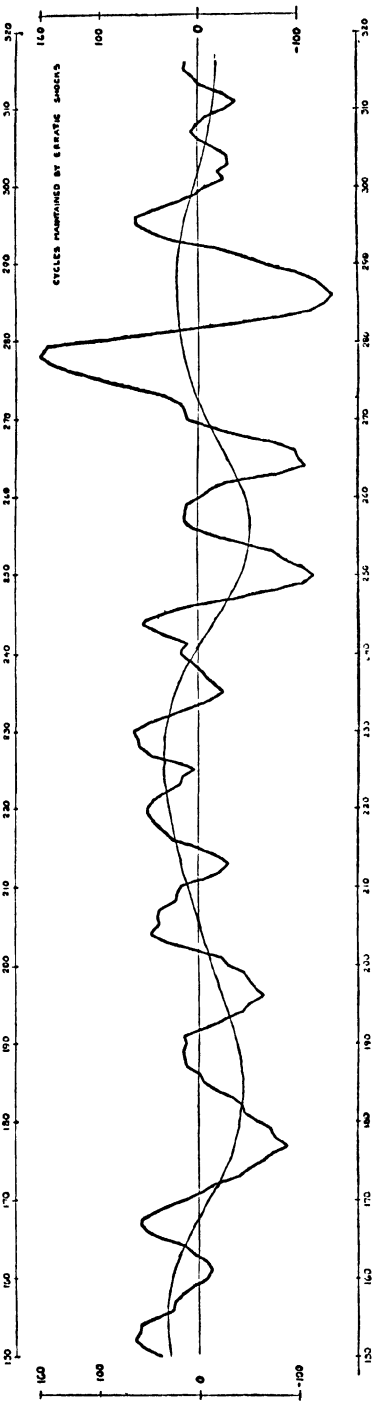

FIG. 6

shape will the function $y(t)$ get? The answer to this question is given by studying the effects of linear operators on erratic shocks. The result of this analysis is that the time shape of the curve will be a *changing harmonic* with the same frequency α as the one occurring in $Q(\tau)$. By a changing harmonic I understand a curve that is moving more or less regularly in cycles, the length of the period and also the amplitude being to some extent variable, these variations taking place, however, within such limits that it is reasonable to speak of an *average* period and an *average* amplitude. In other words, there is created just the kind of curves which we know from actual statistical observation. I shall not attempt to give any formal proof of these facts here. A detailed proof, together with extensive numerical computations, will be given in the above-mentioned paper to appear in *Econometrica*. Here I shall confine myself to reproducing the graph (see Fig. 6) of a changing harmonic produced experimentally as the cumulation of erratic impulses, the weight function being of the form (4).

Thus, by connecting the two ideas: (1) the continuous solution of a determinate dynamic system and (2) the discontinuous shocks intervening and supplying the energy that may maintain the swings—we get a theoretical set-up which seems to furnish a rational interpretation of those movements which we have been accustomed to see in our statistical time data. The solution of the determinate dynamic system only furnishes a part of the explanation: it determines the *weight system* to be used in the cumulation of the erratic shocks. The other and equally important part of the explanation lies in the elucidation of the general laws governing the effect produced by linear operations performed on erratic shocks.

6. THE INNOVATIONS AS A FACTOR IN MAINTAINING OSCILLATIONS

The idea of erratic shocks represents one very essential aspect of the impulse problem in economic cycle analysis, but probably it does not contain the whole explanation. There is also present another source of energy operating in a more continuous fashion and being more intimately connected with the permanent evolution in human societies. The nature of this influence may perhaps be best exhibited by interpreting it in the light of Schumpeter's theory of the innovations and their role in the cyclical movement of economic life. Schumpeter has emphasized the influence of new ideas, new initiatives, the discovery of new technical procedures, new financial organizations, etc., on the course of the cycle. He insists in particular on the fact that these new ideas accumulate in a more or less continuous fashion, but are put into practical application on a larger scale only during certain phases of the cycle. It is like a force that is released during these phases, and this force is the source of energy that maintains the oscillations. This idea is also very similar to an idea developed by the Norwegian economist, Einar Einarsen.* In mathematical language one could perhaps say that one introduces here the idea of an auto-maintained oscillation.

Schumpeter's idea may perhaps be best explained by a mechanical analogy. Personally, I have found this illustration very useful. Indeed it is only after I had constructed this analogy that I really succeeded in understanding Schumpeter's idea. After long conversations and correspondence with Professor Schumpeter I believe the analogy may be taken as a fair representation of his point of view.

Suppose that we have a pendulum freely suspended to a pivot. Above the pendulum is fixed a receptacle where there is water. A small pipe descends all along the pendulum, and at the lower end of the pendulum the pipe opens with a valve which has a peculiar way of functioning. The opening of the valve points towards the left and is larger when the pendulum moves towards the right than when it moves towards the left. Concretely one may, for example, assume that the valve is influenced by the air resistance or by some other factor that determines the opening of the valve as a function of the velocity of the pendulum. Finally we assume that the water in the receptacle is fed from a constantly running stream which is given as a function of time. The stream may, for instance, be a constant.

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* *Gode og daarlige tider*, Oslo, 1904.

Now, if the instrument is let loose it is easy to see what will happen. The water will descend through the pipe, and the force of reaction at the lower end of the pendulum created by the fact that the water is emptying through the valve will push the pendulum towards the right, and this movement will continue until the force of gravitation has become large enough to pull the pendulum back again towards its equilibrium point. During the return the opening of the valve and consequently the force that tends to push the pendulum towards the right will diminish, and thus the movement back towards the central position will be accelerated. The pendulum which is now returning with considerable speed will work up an amount of inertia that will push it behind its equilibrium point away over to a position at the left, but here again the gravitation will start to pull it back towards the centre, and now the valve will widen, and by doing so will increase the force which accelerates the movement towards the right. In this way the movement will continue, and it will continue even although friction is present. One could even imagine that the movement would be more than maintained, i.e. that the oscillations would become wilder and wilder until the instrument breaks down. In order to avoid such a catastrophe one may of course, if necessary, add a dampening mechanism which would tend to stabilize the movement so that the amplitude did not go beyond a certain limit.

The meaning of the various features of this instrument as an illustration of economic life is obvious. The water accumulating in the receptacle above the pendulum are the Schumpeterian innovations. To begin with they are kept a certain time without being utilized. Some of them will perhaps never be utilized, which is illustrated by the fact that some of the atoms in the receptacle will rest there indefinitely. But some others will descend down the pipe, which illustrates that these new ideas are utilized in economic life. This utilization constitutes the new energy which maintains the oscillations.

The instrument as thus conceived will give a picture of the *oscillations* but not of the secular or perhaps supersecular tendency of evolutions. This tendency seems to us to be irreversible because we have not yet lived long enough to see the decline. It is not difficult to complete the instrument in such a way that it will express also this secular or supersecular movement. We may, for instance, imagine that the pivot to which the pendulum is suspended is not fixed but slides in a crack in the wall, the crack ascending towards the right. This being so, the whole instrument will move by jumps, and each jump will carry it to a higher position than before. We only have to feed the instrument by a constantly running stream of water. The impulsion which the water creates as it leaves the valve will maintain the oscillations, and these oscillations will constitute the jumps which carry the instrument steadily to higher levels. Thus there will be an intimate connection between the oscillations and the irreversible evolution.

It would be possible to put the functioning of this whole instrument into equations under more or less simplified assumptions about the construction and functioning of the valve, etc. I even think this will be a useful task for a further analysis of economic oscillations, but I do not intend to take up this mathematical formulation here.

LA VISIONE DEI FENOMENI FINANZIARI NELL'OPERA DI GUSTAV CASSEL

RENZO FUBINI, *R. Istituto superiore di scienze economiche, Bari*

1. I problemi finanziari possono essere utilmente considerati come dei corollari dei problemi economici generali: tutta l'economia finanziaria si riduce, in tal modo, ad una branca particolare dell'economia applicata. E' questo un punto di vista assai fecondo, a cui si sono costantemente attenuti gli autori inglesi da Ricardo a Pigou con una continuità di pensiero profondamente significativa.

2. Ciascuno dei grandi sistemi economici implica una particolare impostazione dei problemi finanziari fondamentali e giova a guidare il lettore nello studio di serie particolari di ripercussioni. Ciò è particolarmente evidente per il sistema di Marshall: si distinguano tra di loro i vari fattori di produzione, considerati come quantità concrete, secondo che sono o meno "costosi"—o, se si preferisce, secondo che è o meno "costoso" il loro incremento marginale—; si generalizzi un poco il concetto, assai elastico, di "fattore di produzione"; si elabori, conseguentemente, il meccanismo dei prezzi "di domanda" e "di offerta": si vede in germe, completa e perfetta, l'economia finanziaria del discepolo e continuatore di A. Marshall, A. C. Pigou, con tutte le sue fini considerazioni sull' "*announcement point of view*" e sul "*distributional point of view*" con gli *efforts*, i *savings* e i *windfalls*. Questa *dipendenza* concettuale dei fenomeni finanziari—particolarmente ben visibile nel sistema di Marshall in ragione del suo carattere concreto—si ritrova anche negli altri sistemi (ad es., nell'economia di J. B. Clark o in quella di Fetter e Fisher): è già, del resto, ben chiara nell'opera di Ricardo e dei suoi successori, ma è stata, in parte, oscurata dai tentativi recenti di costruire una vera e propria "scienza delle finanze" autonoma. Siffatti tentativi, a cui hanno validamente contribuito studiosi svedesi, rappresentano una delle caratteristiche più notevoli dell'era post-jevonsoniana, o postmengeriana che dir si voglia, degli studi economici: le argomentazioni a cui vari autori hanno fatto ricorso sono spesso ingegnose, ma hanno il difetto di essere un po' troppo artificiose, di creare fittiziamente dei problemi inesistenti, di condurci, in genere, troppo lontano da quella realtà concreta, che ogni indagine scientifica deve, in definitiva, contribuire a chiarire. Il contributo critico

da essi apportato mi pare di gran lunga superiore al loro contributo costruttivo. E' il presupposto stesso di tali costruzioni, vale a dire l'idea di costruire una teoria pura della finanza da porre accanto alla teoria pura dell'economia, che mi pare assai discutibile. Fu osservato talora, non senza qualche fondamento, che tali impostazioni non sono del tutto libere da preconcetti politici: ciò conferma, in certo modo l'irrealizzabilità di una finanza pura. E. von Beckerath ebbe di recente ad affermare che a base di questi vari tentativi stanno i principii teorici generali posti innanzi da Jevons:* la sua osservazione è esatta, ma è pur vero che per lo scienziato inglese, la cui opera, nonostante le apparenze rivoluzionarie, si inserisce armonicamente nella tradizione inglese, i problemi finanziari non costituiscono affatto problemi trattabili in sede di scienza pura, come vorrebbero E. Sax e K. Wicksell, ma sono problemi *molto particolari* di economia applicata.† E' questo un punto di vista che ritengo utile mantenere: giova a chiarire le idee, a spiegare i contrasti e a liberare l'indagine teorica da ogni aprioristica interferenza politica.

3. Si possono distinguere, anzi tutto, a tal proposito, i vari sistemi economici secondo che considerano economica o extraeconomica l'*origine prima* dei fenomeni finanziari.

Per Ricardo, come già in parte per Smith, l'origine prima di tali fenomeni è interamente extraeconomica; l'idea mercantilista, che oggi risorge, dello Stato potenziatore dell'economia nazionale e conquistatore di mercati è abbandonata: il còmpito dello studioso è quello di analizzare le ripercussioni economiche esercitate dai provvedimenti finanziari, considerati unicamente come provvedimenti politici. Vari autori successivi accolgono sostanzialmente questo punto di vista, ma non si pronunciano sull'origine prima di tali provvedimenti: li considerano dei "dati di fatto."‡

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* Nello scritto *Formen moderner Finanztheorie* in *Festgabe für Georg von Schanz*, Tübingen, 1928, vol. i, pp. 3 e segg.

† V. gli studi compresi nel volume *Methods of Social Reform* (1883).

‡ E' solo in tal modo che si pone nettamente il problema della traslazione delle imposte: chi ritiene, con qualche scrittore "edonista," che l'origine dell'attività finanziaria, non concepita come attività coattiva, sia esclusivamente economica e che le imposte siano elementi delle spese di produzione alla pari dei beni capitali e del lavoro, diretti a compensare il contributo dei servizi pufflici alla produzione, a rigore dovrebbe concludere che il problema della traslazione delle imposte *non esiste.* In tal caso, però, si assurgerebbe ad una visione talmente astratta da far dubitare assai del suo valore concreto: non vi è chi l'accolga: Ricardo domina tutte le elaborazioni finanziarie moderne.

Per Marshall, sollecito nel conservare tutto quanto di vitale gli pareva di scorgere nella concezione classica, i fenomeni finanziari hanno in parte origine economica e in parte origine extraeconomica.

Per i marxisti, invece, l'origine loro è interamente economica; i fenomeni finanziari non sono che una soprastruttura sistematica dei fenomeni economici *stricto sensu*: l'ordinamento tributario, anzi tutta la finanza sia ordinaria sia straordinaria, si plasma sull'ordinamento economico; nei loro sistemi la finanza pubblica viene a costituire una parte integrante assai notevole.

Un atteggiamento in parte analogo a quello dei marxisti per quanto attiene all'origine economica dei fenomeni finanziari è quello adottato da quegli scrittori, che si sogliono qualificare, molto genericamente, con la denominazione di "edonisti" e che meglio si potrebbero chiamare "marginalisti" per significare che fanno un uso del concetto fondamentale di "margine" più ampio ed intenso di quello fatto da Marshall: essi tendono a determinare dei limiti entro cui l'arbitrio dello Stato tende ad essere contenuto. Il loro merito principale—a mio avviso—non è quello di aver voluto talora estendere, un po' arbitrariamente, il concetto di utilità marginale nel campo della finanza pubblica al fine di chiarire una parte più o meno ampia dell'attività finanziaria o di aver tentato di stabilire dei rapporti quantitativi tra consumi privati e "consumi pubblici," bensì quello di aver abbandonato la concezione di uno Stato a sè stante, avente un'individualità sua particolare, avulso dagli individui, oppure quella di uno Stato semplice simbolo di forze interferenti con i normali processi economici, e di aver sostituito a tali concezioni un'altra concezione, per cui l'attività dello Stato e l'attività degli individui si completano armonicamente a vicenda, non sono anzi che diversi aspetti di un'unica attività, indirizzata, fin dall'inizio del processo economico-privato e con perfetta continuità tecnico-economica, a mirare al più perfetto raggiungimento di dati fini.

In due punti, sopra tutto, si separano dai marxisti: per loro perde d'importanza la considerazione dell'elemento coattivo dell'attività finanziaria, che è, invece, necessariamente fondamentale per le altre impostazioni; l'indagine tende, inoltre, ad assumere un carattere rigidamente statico e a vertere su un oggetto strettamente economico. Questi due punti li separano pure, in parte, da Marshall (oltre che da Ricardo) per via della posizione intermedia assunta da questo autore, a cui lo Stato e gli enti politici minori appaiono ora agenti o fattori concreti di produzione*—concezione questa che può trovar consenzienti molti edonisti—, ora, invece, modificatori di risultati di passati processi produttivi (ad esempio, con la "politica sociale"). Lo stesso atteggiamento intermedio a me pare assai fecondo di suggerimenti nel campo dell'economia bancaria.

4. A tal proposito si possono distinguere i vari sistemi anche *secondo la diversa ampiezza con cui è intesa l'espressione "economico."*

Là dove l'espressione è intesa in senso molto ampio o indefinito; là dove più frequenti sono i richiami alla realtà empirica e questi giovano alla stessa costruzione della teoria; là dove si distinguono differenze individuali nel comportamento dei vari soggetti economici; là dove—sopra tutto—si ammette la coesistenza e l'interferenza di parecchi calcoli economici aventi a base vari punti di partenza e vari periodi di tempo di diversa durata (un diverso "orizzonte economico" com'ebbi altra volta ad esprimermi), e lo studio degli equilibri non è che *uno* degli strumenti a cui si ricorre per porre in luce certe tendenze, sorge più spontanea e più logica l'idea di considerare il fenomeno finanziario o come parte integrante del sistema (come nei marxisti) o come oggetto di corollari dei teoremi economici in esso enunciati (come negli economisti inglesi, o di ispirazione inglese, in genere). Il concetto di corollario implica, per lo più, l'idea del prevalere del rapporto di dipendenza dei fenomeni finanziari dagli economici sul rapporto di interdipendenza dei due fenomeni.

Là dove, invece, l'espressione è intesa in senso meno ampio o meno indefinito; là dove il carattere rigidamente logico-astratto dell'indagine non pare consentire richiami alla complessa e mutevole realtà empirica; là dove—sopra tutto—si studia rigorosamente l'equilibrio quale si determinerebbe ipoteticamente, per tutti gli individui componenti la collettività, in un dato unico istante di tempo anzi che in un dato variabile periodo di tempo come tendono a fare i teorici dell'equilibrio generale; il fenomeno finanziario tende spesso ad apparire di natura extraeconomica, ad essere considerato in relazione ai contrasti tra i vari gruppi sociali,* a divenire oggetto particolare di studio da parte della sociologia o della politica o della storia, non dell'economia vera e propria. Tipico, a tal proposito, è l'esempio di Pareto, il quale considera i problemi finanziari in relazione alle proprie indagini sociologiche, a cui si può contrapporre l'esempio di Pantaleoni, il quale, invece, chiarisce ripetutamente la natura dei problemi finanziari, partendo, com'era sua abitudine, dai più diversi punti di vista, considerati in base a vari sistemi economici che egli cerca costantemente di conciliare.† Alla luce di *alcuni* di questi punti di vista risultano economiche sia l'origine prima dei fenomeni finanziari che le loro manifestazioni concrete.

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* "The constructive work of government, and especially of local government, is life itself in one of its highest forms" (*Official Papers*, p. 358); "The agents of production are commonly classed as Land, Labour and Capital. . . . Capital consists in a great part of knowledge and organization. . . . Organization . . . has . . . many forms, e.g. . . . that of the State providing security for all and help for many" (*Principles*, eighth ed., pp. 138–39); "We may . . . arrange the things that are required for making a commodity into whatever groups are convenient, and call them its *factors of production*" (ibid., p. 339). Vedi pure quanto è detto sulla crescente importanza del capitale ausiliario (ibid., ed. cit., pp. 221–24).

5. Come si può classificare, in relazione ai due criteri accennati, intimamente connessi tra di loro, il pensiero del Cassel? Ove si prescinda da alcune sue peculiarità (assai degne di nota se pur, forse, meno di quanto si ritiene comunemente) che lo separano dagli economisti inglesi e lo avvicinano alla scuola di Losanna, a me pare che il pensiero dell'autore della *Nature and Necessity of Interest* e della *Theoretische Sozialökonomie* sia molto più vicino al pensiero di Marshall di quanto possa apparire a tutta prima. Egli si allontana in più punti dai teorici dell'equilibrio generale: limita la portata del concetto di mutua dipendenza, che cerca anzi di conciliare col concetto di causalità, a cui in realtà lo subordina;‡ insiste assai sul concetto di continuità dei processi economici; evita di distinguere esplicitamente tra libera concorrenza e monopolio; stralcia, per così dire, la teoria della moneta dal nucleo del sistema;§ insiste sul concetto, non immobilistico ma di compenso tra variazioni in diverso senso, di "livello dei prezzi"; tende

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* Onde non rientra nella teoria delle distribuzione "funzionale," ma, tutt'al più, nella teoria della distribuzione personale.

† Si è talora considerato a torto M. Pantaleoni precursore della teorie "edonistiche" della finanza tipo Sax: in realtà lo scienziato italiano, come ricorda opportunamente M. Fanno (*Elementi di scienza delle finanze*, Torino, 1931, p. 31 n.), non considera affatto il problema edonistico dei contribuenti, ma "si limita . . . a sostenere che le pubbliche spese tendono ad essere ripartite tra i vari pubblici servizi in modo che il grado finale di utilità risulti uguale," tesi questa, che, credo, troverebbe consenziente lo stesso Cassel nonostante le sue avversioni all' indirizzo edonistico.

‡ V., ad es., i *Fundamental Thoughts in Economics*, specie pp. 60 e 95–96.

§ V. su questo punto il recente profondo studio di H. Mayer (*Der Erkenntniswert der funktionellen Preistheorien* nel volume *Wirtschaftstheorie der Gegenwart*, II, Wien, 1932, pp. 218 e segg.), al quale però mi pare sfugga il significato caratteristico dell'opera del Cassel e la ragione vera della sua vitalità e fecondità.

talora, specie nella teoria della distribuzione, a considerare, non gli equilibri che si determinerebbero ipoteticamente per tutti gli individui in un dato unico istante di tempo, ma gli equilibri verso cui si tende entro determinati periodi di tempo in relazione ai mutevoli interferenti calcoli di convenienza dei singoli; cerca anzi, in più punti, di conciliare tra di loro i due diversi concetti—meccanico e "biologico"—di equilibrio, così come, valendosi anche di siffatta conciliazione, accanto all'ipotesi della società immobile, considera ipotesi, molto particolari, di società in movimento. Del Marshall pare condividere, tra altro la concezione intermedia circa l'origine economica o extraeconomica dell'attività finanziaria, elaborando egli un concetto assai comprensivo e realistico di "bisogno collettivo."*

6. Il Cassel non ha studiato di proposito sistematicamente i problemi finanziari (come, del resto, non ha fatto neppure il Marshall): i cenni contenuti nei suoi lavori, per quanto sommari, ci mostrano però che in tal campo il suo pensiero, pur sempre indipendente, non si separa fondamentalmente dal pensiero del maestro inglese. Certo la sua finanza è diversa da quella del Pigou: probabilmente le fini considerazioni psicologiche di quest'ultimo, anche se circondate da tante riserve, non gli vanno molto a genio in ragione sia del loro punto di partenza che della loro divergenza dalla realtà concreta. La sua finanza è diversa anche da quella del *Colwyn Report*. Si ricordi, però, che Marshall è un autore complesso e che Pigou e gli altri autori inglesi non hanno sviluppato che un lato particolare del suo sistema: Cassel, il quale si compiace di considerare gli aspetti oggettivi dei fenomeni economici, è spiritualmente più vicino ad altri lati o presupposti del suo sistema: la teoria degli equilibri lo interessa di più della teoria del benessere o degli incentivi. La tendenza generica di Cassel verso le concezioni dell'equilibrio generale non costituisce in realtà un elemento rilevante di divergenza tra i due autori, chè anzi la visione di Marshall appare talvolta più ampia della visione di Cassel: si consideri, ad esempio, la teoria della moneta: nel Marshall (*Money*, *Credit and Commerce*) essa è coordinata a tutto il sistema, che può anzi contribuire a chiarire, e risulta strettamente collegata alle altre parti dalla teoria generale del valore; nel Cassel, invece, risulta da una trattazione a sè stante, confinata rigidamente ad una singola parte del trattato (libro terzo della *Sozialökonomie*), senza *necessarie* relazioni concettuali col resto dell'esposizione, come appare anche dai *Fundamental Thoughts*; la teoria

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* V. il cap. X del libro I della *Theoretische Sozialökonomie*.

della moneta è isolata dalle altre: l'isolamento vien meno soltanto quand'egli viene a discorrere dei cambi esteri.

Una caratteristica comune ai due autori è quella di richiamarsi spesso a dei concetti un po' vaghi, molto generali, di cui non è sempre netta e immediata la relazione con le varie parti della trattazione: nel Marshall, ad es., vi è l'idea, che fa capolino quà e là, ripresa dal Robertson, di costo "reale" di produzione (in termini di sacrificio)*; nel Cassel vi è l'idea, ancor più generale, su cui l'autore torna più volte con insistenza, di "rarità," in cui si fondono, perdendo la loro individualità, elementi di "costo" trattati separatamente da altri autori (ad es., gli *efforts*). In entrambi i sistemi tali idee un po' indefinite acquistano, di volta in volta, un contorno definito, e giovano perspicuamente a connettere tra di loro le varie parti, grazie ad un notevole accumulo di materiale empirico, di nozioni positive, di suggerimenti pratici, ecc., i quali tutti, anche se sembrano talora un po' piatti perchè, data l'uniformità dell'intonazione, non contribuiscono sempre a dare una particolare prospettiva alle varie parti della trattazione, vivificano in realtà l'esposizione, rendendola particolarmente feconda di insegnamenti a chi si appresti a studiare problemi di economia applicata, quali sono, per loro natura, i problemi finanziari ed anche i problemi bancari. Al qual fine non occorre che ampliare o modificare convenientemente, in relazione ai fini perseguiti dall'indagatore, il materiale empirico inserito nella trattazione.

Nel pensiero del Cassel la "rarità" comprende, in un certo senso, o, se si preferisce, presuppone i vari elementi di costo: "costo," a sua volta, significa semplicemente aggregato delle erogazioni in danaro, che i singoli devono sostenere al fine di porre in essere un dato bene. Le "domande" dei vari individui componenti l'aggregato considerato, o le spese che essi sostengono effettivamente in un dato istante, sono un indice di determinate situazioni psicologiche, che gli autori austriaci—ed in particolare E. Sax, il quale segue in tal campo direttive proprie—si compiacciono di analizzare in base a speciali criteri: queste situazioni non interessano il Cassel, il quale arresta, per così dire, l'indagine ad un punto anteriore a quello raggiunto dal Sax. In un certo senso può dirsi che il Cassel assume un atteggiamento in parte analogo a quello assunto dal De Viti de Marco, il quale ultimo, invece, ragiona in un primo tempo in termini "edonistici," ma poi, ad un certo punto, contrapponendosi al Fisher della *Nature of Capital and*

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* V., per quanto concerne l'utilità concreta di tale concetto nelle indagini di politica economica, Marshall, *Industry and Trade*, 1923, p. 183.

Income, arresta l'indagine psicologica e discorre in termini puramente oggettivi di beni diretti, di beni strumentali e di processi di produzione. Entrambi gli autori sembrano scettici sulla fecondità di una più intensa analisi soggettiva. Essi non ignorano certo la possibilità di un'indagine soggettiva: mi pare possa dirsi che essi, alla pari di Ricardo, suppongono, più o meno esplicitamente, che l'elemento soggettivo agisca costantemente *nella medesima misura* per categorie ampie di ipotesi. E' questo un punto che io ebbi altrove ad illustrare, trattando del concetto di imposta generale e del dibattuto problema della tassazione del risparmio.* Il Cassel si limita a considerare la possibilità concreta di vari sistemi di prezzi e, *talora*, la loro economicità,† tenendo sopra tutto presente che le varie domande sono concorrenti tra di loro: se aumenta una data spesa, devono diminuire, a parità di reddito, le altre spese considerate nel loro complesso. E' questo il tipo di concorrenza che egli ha presente constantemente nel suo trattato e che utilizza spesso, trascurando altri tipi di dipendenza, considerati invece dagli altri autori, a cui egli desidera contrapporsi col suo sistema. Di queste considerazioni egli si vale sopra tutto nei suoi studi sulla struttura dei prezzi nei vari paesi, sui cambi, ecc., ecc.: è da questi studi, meritamente appezzati, che ritengo convenga prendere prevalentemente le mosse per sviluppare il suo pensiero.

Risulta quindi, da quanto ho su ricordato, che, per quanto concerne i problemi finanziari, il Cassel suppone che *non mutino i presupposti psicologici della condotta degli uomini*, *nè la loro rilevanza concreta*, sia che il meccanismo dei prezzi venga meno del tutto, sia che venga meno in parte, come accade nelle nostre società, in cui attività economica e attività finanziaria si combinano variamente tra di loro. E' su siffatta base che si pone, nel suo pensiero, il problema finanziario: a tale stregua, per passare dall'indagine economica all'indagine finanziaria è vano ragionare in termini soggettivi: occorre semplicemente procurarsi del materiale empirico "oggettivo," atto a dare concretezza a certi generici concetti astratti.

7. Per il Cassel (V. il capitolo X della *Sozialökonomie*), il problema finanziario si imposta come problema autonomo ogni qual volta si pone in essere un bene, che giova a tutto un aggregato (direttamente o

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* V. gli articoli sul concetto di imposta generale e sugli effetti di tale imposta nel "Giornale degli Economisti" maggio e giugno 1932.

† V. Cassel, *Neuere monopolistische Tendenzen in Industrie und Handel*, Berlin, 1927.

indirettamente) e si deve quindi risolvere il problema del come ripartire, in assenza del meccanismo automatico del prezzo e, quindi, in assenza anche delle domande individuali dei vari uomini concreti, il costo tra i vari membri dell'aggregato stesso: ne risulta una tecnica dai lineamenti definiti. Questa ripartizione, comunque avvenga, esercita naturalmente delle ripercussioni su tutta la struttura dei prezzi: per chiarirle occorre far ricorso, in via analogica, a quanto l'autore dice sui cambi, sulle parità dei poteri di acquisto, sulla politica bancaria, ecc. Negli accenni di politica bancaria egli ne accentua assai, fors'anche eccessivamente, gli aspetti coattivi: sono perciò fecondi, come tutte le discussioni della scuola metallica, di suggerimenti per gli studi di finanza pubblica. Studi questi, che non possono non trar vantaggio da maggiori contatti con gli studi di finanza privata.

Siffatta impostazione da un certo punto di vista è più ristretta di quella del Sax in quanto, *in linea di massima*, non si preoccupa di ricercare la genesi del fenomeno finanziario, ma, da un altro punto di vista, è più ampia in quanto si risolve in una impostazione particolare di tutti i problemi relativi alla condotta dello Stato e di altri importanti organismi (politica economica).*† L'autore, come si era astenuto dal pronunciarsi in linea di massima sulla genesi dell'intervento dello Stato (sembrandogli probabilmente troppo diversi da caso a caso, e quindi non riducibili ad unità, i moventi della sua azione che egli ricorda talora, quà e là, nelle proprie opere), arresta pure ad un certo stadio l'indagine intrapresa: non solo vuole restringerla all'esame di certi aspetti oggettivi, ma vuole anche limitarsi, in conformità a certi suoi principii direttivi, a considerare unicamente i rapporti tra i prezzi anzi che il livello dei prezzi: è questo un punto su cui tornerò più innanzi. Egli non ci dice nulla in merito alla economicità del coordinamento dell'attività pubblica con l'attività privata, la quale economicità, secondo quanto si ritiene comunemente—ed è ammesso dalla scuola economica della finanza (in Italia da L. Einaudi)—può esserci tipicamente rivelata, sia nei suoi aspetti dinamici che nei suoi aspetti statici, dalle alterazioni di siffatto livello. Quando egli discorre di livello dei prezzi egli si limita a richiamarsi alla domanda e offerta di moneta:* sebbene manchi nelle sue opere una vera analisi della domanda di moneta quale troviamo abbozzata in Marshall,† è evidente da quanto egli suole asserire che egli elimina esplicitamente, tra altre ipotesi, quella, a suo giudizio irreale, di una definitiva riduzione del livello dei prezzi dovuta ad un progresso economico.‡ Abbiamo, del resto, al riguardo una sua recentissima esplicita affermazione.§ Prima di esaminare queste sue opinioni dirò brevemente del suo concetto di bisogno collettivo.

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* Fu infatti tentato di impostare scientificamente il problema della politica economica prendendo a base prevalentemente la costruzione del Cassel (Vedi V. Porri, *Corso di politica economica internazionale*, Torino, 1930).

† Si noti quanto diversa dalla concezione del Sax sia, ad esempio, la concezione di un autorevole studioso, G. Del Vecchio, il quale, considerando la possibilità di veri e propri sistemi di politica economica, imposta nei seguenti termini il problema politico-economico: "Ci troviamo . . . di fronte a questo problema: se la politica economica è un'attività economica come tutte le altre noi dovremo avere *un soggetto*, *certi scopi*, *certi intenti*, *certe utilità* da un lato e dall'altro avremo *dei limiti e dei costi*. Per applicare la teoria economica al campo della politica economica dobbiamo risolvere il seguente problema: vedere qual'è il soggetto economico di queste attività e vedere quali sono i suoi *scopi*, i suoi *intenti*, le sue utilità, i suoi limiti ed il suo costo (*Politica economica*, Padova, 1933, p. 41). E' un'impostazione del tutto diversa, atta a guidare nello studio di una serie, del tutto diversa, di ripercussioni.

Nella sua breve trattazione dei problemi finanziari vi è, a questo proposito, un'affermazione, che, a tutta prima, può apparire banale: "Per la soddisfazione dei bisogni collettivi . . . —osserva l'autore—lo Stato si impone. E solo grazie a queste considerazioni economiche [soddisfazione dei bisogni collettivi] che si avverte chiaramente la necessità dello Stato. . . . Questa necessità, basata sulla natura dei *bisogni puramente collettivi*, dovrebbe divenire il punto di partenza di tutta la scienza delle finanze." Questa sua osservazione risulta chiara ove si avverta che il suo concetto di bisogno collettivo è assai diverso dal concetto che ne ha il Sax. Per quest'ultimo autore i bisogni collettivi sorgono analogamente ai bisogni individuali e analogo ne è, del pari, in certo modo, il processo di soddisfazione. I bisogni collettivi pel Cassel non sorgono fin dall'inizio del processo produttivo privato, ma sorgono, spesso, in un secondo tempo onde modificarne alcune caratteristiche. Si spiega così com'egli nella sua trattazione dia un

* V., ad es., *Post-War Monetary Stabilization*, New York, 1928, pp. 91–92.

† *Official Papers*, pp. 43–45.

‡ V. op. cit., p. 92: "The prevalent notion that the general level of prices is determined by a number of . . . factors such as the costs of industrial production, ocean freights, etc., must be relegated to the domain of economic dilettantism . . . . the *ultimate explanation* of changes in the price level must always be that the supply of means of payment has not been adjusted to the existing demand for them."

§ V. *The Crisis in the World's Monetary System*, Oxford, 1932, p. 49. L'autore afferma: "A reduction of technical costs of production can never mean anything else than a narrowing of the margin between the prices of labour, raw materials, and other factors of production on the one hand, and the prices of finished goods on the other." E' un'affermazione questa basata su presupposti di natura molto particolare.

posto preminente alla politica sociale e alla politica operaia (cap. X cit.) e come, parlando della protezione doganale (cap. LXXXV) discorra delle tesi politiche di List come dirette a propugnare la soddisfazione di bisogni collettivi e, conseguentemente, la creazione di beni collettivi.

Il processo della soddisfazione dei bisogni collettivi, quale è da lui inteso, è radicalmente diverso dal processo della soddisfazione dei bisogni individuali: il comportamento degli individui è, in tal caso, completamente passivo: spesso, anzi, molti traggono vantaggio dall'esistenza di beni collettivi senza neppur rendersene conto. Si palesa il carattere coattivo dell'attività pubblica sia nell'atto della creazione di dati beni collettivi, che vengono, in parte, a soddisfare certe esigenze preesistenti e, in parte, a crearne di nuove, apportando modificazioni strutturali dell'ambiente, sia nelle modalità con cui ne è ripartito il costo tra i vari individui. Problema finanziario fondamentale è quello dello studio della ripartizione del costo e, conseguentemente, delle ripercussioni esercitate dalla ripartizione stessa.

8. Come ho testè ricordato, il Cassel circoscrive assai l'àmbito delle indagini finanziarie.

Per quanto concerne l'eliminazione dello studio degli aspetti soggettivi non ho nulla da aggiungere a quanto ho sopra esposto: a tale eliminazione fa riscontro una concezione particolare della scienza delle finanze e della politica economica, atta a richiamare l'attenzione dello studioso su serie specifiche di ripercussioni.*

Per quanto concerne l'eliminazione dello studio degli aspetti "monetari" (considerazione delle variazioni del livello generale dei prezzi) aggiungo qualche cenno.

E' noto come la pubblicazione del *Colwyn Report*† abbia dato origine a discussioni assai interessanti in tema di traslazione: interessanti, più ancora che per l'importanza pratica delle questioni dibattute, per i riflessi di teoria economica impliciti in questi appassionati dibattiti. In tali dibattiti si confondevano però, talora, aspetti diversi, statici e dinamici, monetari ed extramonetari: taluno distingueva, secondo una tradizione non accolta da tutti, con vario criterio, fenomeni veri e propri di traslazione da altri effetti delle imposte.

Giunse in buon punto, opportuna e tempestiva, la pubblicazione di un articolo del Cassel,‡ diretto, sostanzialmente, a porre in luce come non tutti gli aumenti di prezzo susseguenti all'istituzione dell'imposta costituiscano veri e propri fenomeni di traslazione. L'idea, di per sè, non era del tutto nuova: nelle discussioni particolari era stata posta innanzi sopratutto nelle polemiche sulla traslazione nell'ipotesi del monopolio,* e—lo si può pure notare di sfuggita—è più conforme alla logica delle teorie dell'equilibrio particolare che non alla logica delle teorie dell'equilibrio generale. Nuovo era, invece, il *fundamentum divisionis*: qui il Cassel si separa nettamente dalla tradizione classica. Egli afferma che nello studio dei fenomeni di traslazione non si deve tener conto del fattore monetario: i fenomeni di traslazione non concernono il livello generale dei prezzi, il quale livello è, a suo giudizio, un concetto puramente monetario—salvo che si vogliano studiare gli effetti specifici dell'istituzione di un'imposta che colpisca la produzione dell'oro nei paesi che hanno miniere aurifere—, bensì i rapporti reciproci dei prezzi: "*the question of the influence of taxation on prices is . . . a question of relative price-fixing.*"† L'autore espone la sua tesi molto semplicemente come se si trattasse di cosa ovvia: in realtà la tesi, se è pienamente conforme a certi atteggiamenti, già ricordati, assunti dal Cassel, mi pare abbia nondimeno carattere rivoluzionario sempre che si ritenga implichi l'enunciazione di una verità scientifica e non invece, come penso io, una semplice enunciazione di carattere metodologcio.

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* Ed atta ad indurlo a trascurare altre serie di ripercussioni.

† *Report of the Committee on National Debt and Taxation* (1927).

‡ *The Treatment of Price Problems* in *The Economic Journal*, December 1928.

Ho precisato altrove i presupposti che tale tesi implica‡ e mi permetto di valermi di quanto ebbi allora a scrivere. La tesi del Cassel è esatta ove:

(1) si ritenga che il problema dell'impiego dei proventi fiscali faccia parte integrante del problema della traslazione delle imposte;

(2) si ritenga che l'istituzione dell'imposta non porti ad una alterazione dei processi produttivi, il che avrebbe riscontro nella realtà concreta se i contribuenti, rendendosi conto del bisogno che hanno, in vista del conseguimento dei fini che loro premono, del fattore "Stato" pagassero le imposte di loro iniziativa o, quanto meno, se fosse loro nettamente palese che, in assenza della corresponsione dell'imposta da parte loro e del relativo impiego dei proventi, i processi produttivi divisati non potrebbero ricevere esecuzione: *l'imposta si riduce a un prezzo*;

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* K. Wicksell, *Finanztheoretische Untersuchungen*, Jena, 1896, p. 12.

† Art. cit., p. 592. L'A. parla genericamente di "influenza" e di effetti, ma il fine cui mira è di circoscrivere rigidamente l'àmbito di quelli che si sogliono considerare fenomeni di traslazione.

‡ Nell'art. già citato pubblicato nel *Giornale degli economisti*, giugno 1932, pp. 385 et seqq.

(3) si ritenga che neppur l'ente pubblico con l'impiego dei proventi fiscali modifichi la durata dei processi produttivi: esso si limita unicamente ad un'opera di redistribuzione dei mezzi di pagamento prelevati all'interno della circoscrizione politica;

(4) si ritenga che l'ente pubblico non eserciti alcuna influenza sulla velocità di circolazione della moneta e degli altri mezzi di pagamento;

(5) si ritenga che l'imposta non scoraggi, nè incoraggi la produzione, complessivamente considerata, portando ad un aumento o ad una riduzione di costi oppure che tali alterazioni di costi non abbiano alcuna influenza sui prezzi;

(6) ci si attenga ad una concezione rigidamente "statica," vale a dire si supponga che la condotta degli individui non risenta alcuna influenza dalla previsione da parte loro di eventi futuri.

In tal caso: i contribuenti *de facto* riducono i propri consumi* in misura corrispondente all'ammontare dell'imposta; i beneficiati *de facto* li aumentano in misura corrispondente ai benefici ricavati; la nuova situazione si perpetua nel tempo; i processi produttivi restano quali erano con la sola differenza che varia unicamente, per certe specie di beni, il numero delle unità prodotte: il livello generale dei prezzi può restare inalterato se, nel complesso, le restrizioni dei consumi dei contribuenti *de facto* bilanciano gli aumenti dei consumi dei beneficiati *de facto* con una perfetta ritmicità, che, in concreto, può essere ritardata o accelerata dall'opera degli istituti di credito.

E' il Cassel disposto ad accogliere le sei condizioni da me elencate, necessarie per render valida la tesi, che egli ha posto innanzi? Vi è ragione di dubitarne, specie per quanto concerne la seconda: si tratta sostanzialmente dell'applicazione dell'ipotesi edonistica allo studio dei problemi finanziari, la quale applicazione contrasta con tutte le vedute del Cassel. Sembra quasi che egli, senza accorgersene, venga a dar ragione ai suoi avversari.

Non sto a considerare da tal punto di vista le altre condizioni per non abusare dell'ospitalità che mi è stata offerta: mi limito ad osservare, a guisa di conclusione, che, mentre l'eliminazione dell'esame degli aspetti soggettivi corrisponde ad un profondo convincimento dell'autore e giova assai, indirettamente, ad illuminarne tutta la visione economica, l'eliminazione dell'esame degli aspetti "monetari" deve considerarsi, a mio avviso, un puro e semplice espediente—meritevole di essere considerato attentamente in relazione ai vantaggi che può arrecare—, a cui il Cassel ricorre, per comodità di studio, per semplificare l'indagine. E' un metodo analogo, in certo modo, a quelli a cui fa talora appello Marshall, ma che, di per sè, non giova affatto ad illuminare la visione economica dell'autore. Analogamente a me paiono essere semplici ragioni metodologiche, quelle che inducono l'autore a circoscrivere il problema "monetario" (e, quindi, il problema generico del progresso e quello, specifico, della stabilizzazione dei prezzi) nel senso accennato nel paragrafo precedente.

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* Col termine "consumo" intendo sia le erogazioni dette "improduttive" che quelle dette "produttive."

L'opera del Cassel è un po' come quella del Marshall: suscita entusiasmi appassionati e avversioni feroci. Il suo valore, la sua vitalità, la sua fecondità sono assai notevoli, come bene attesta il fervore scientifico che ha suscitato in ambienti, quali quelli germanici, spesso poco propensi alla speculazione scientifica nel campo delle scienze sociali. E' augurabile che l'opera del Cassel faccia sentire la sua influenza anche nel campo degli studi finanziari.

ECONOMIC THEORY AND UNEMPLOYMENT

FRANK D. GRAHAM, *Institut Universitaire de Hautes Études Internationales, Genève*

THE phrase "in the long run" has done much to inhibit thinking, and to frustrate desirable action, in the realm of economics. A cherished safeguard against superficial criticism it has not uncommonly been perverted to the uses of those who are more interested in logic than in life. The mortar by means of which imposing but often unreal systems of economic thought have been bound together it has gone far to conceal the essential friability of the stones in structures to which it seemed to give coherence and cohesion. Too frequently has it been forgotten that "the long run" is not ordinarily to be regarded as a mere extension of short-run phenomena, but as an expression to cover the hypothetical result of presupposed causes, which may, in fact, not be operative at all, or, if operative, may be counteracted in greater or lesser degree, and for periods of indefinite length, by forces usually treated as of ephemeral importance.

The statement just made does not so much apply to discussions in which long- and short-run factors are carefully contrasted as, for example, in the theory associated with fixed and variable costs, as it does to a brushing aside of what are regarded as fortuitous disturbances of a tendency toward equilibrium persistently deriving from the rational, hedonistic impulses by which economic activity is still widely supposed to be inspired. This equilibrium is conceived to be all-embracing, covering not only the coincidence between commodity price ratios and the relative real cost of the provision of reproducible goods, but also the factors in production, on the assumption, so far as labour and "abstinence" are concerned, that all willing sellers can find a market for their services at a positive equilibrium price. Disturbances of such an equilibrium may be simple or compound. They are simple when equilibrating forces act immediately, and without any offset, to effect a new synthesis differing in details yet essentially similar to that which had previously prevailed. They are compound when any given disturbance, instead of being immediately subject to compensatory influences, releases further disequilibrating forces of widespread effect, before any tendency toward a new equilibrium comes into effective operation. Since the words "in the long run" are merely an elliptical expression for this assumed tendency toward immediate or ultimate equilibrium, and have little or no relation to time or to the situation which will, in fact, be realized at a later date, it behoves us to look sharply at our assumptions.

There is some disposition to characterize the forces which operate to produce an assumed general equilibrium as "long-run" forces, while those which operate in the counter direction are classed as "short-run." The nature of physical phenomena is such that certain factors of *supply* are subject to persistent and progressive limitations. These it is indubitably correct to call "long-run" factors. They are *always* operative, though, under certain conditions, their influence may, for the time being, be partly, fully, or more than fully, compensated by factors which it may be correct to call "short-run."* When we are dealing not with the objective but with the purely subjective phenomena of economics, however, specifically with demand factors, we are on a much less solid footing. Deductions from an assumed rational and informed hedonism, expressing itself in a milieu of atomistic economic institutions, are likely to wander from reality, to possess only passing applicability to actual affairs, to encourage unwarranted optimism, and to lead to a quietistic *laisser aller*. It may therefore be fruitful to abandon ideas which not only assume rational conduct issuing in an inherent tendency toward equilibrium, with full or practically full employment of productive resources, but also the satisfaction of changing demand to the fullest extent permitted by technological limitations.

The classical economists said little or nothing about crises, their immediate followers treated crises as ephemeral aberrations, and even specialized students of business cycles, whether or not they adhere to classical and neo-classical theory, have thought in terms of fluctuations about a norm closely approximating, if not identical with, the prevailing concept of general equilibrium. The only aspect of economic events, however, which even remotely corresponds with such an equilibrium is that which appears near the climax of the ascendant phase of a cycle. The fear of boom conditions, when "boom" means merely full employment, can find no logical justification in classical, and later, economic doctrines, since such a boom is but an approach to the conditions of general equilibrium. It is only the falling short of this mark which calls for embarrassing explanations. If cycles of business activity were attended, in the ascendant phase, by a shortage of labour, by overtime, and by deficiency of equipment, in the same degree in which we have unemployment, short time, and excess equipment in the descendant phase, the notion of equilibrium as a norm in which labour and equipment are employed at optimum intensity to produce the maximum output consistent with the current relationship between the desire for leisure and the desire for goods (with deviations of equal scale occurring on both sides) would be more or less consonant with reality. It will scarcely be contended, however, that this is, in fact, the case. Even at the peak of most so-called booms there is ordinarily a reserve of unemployed labour, overtime is not widespread, and equipment is not used with undue intensity. So far as productivity is concerned, such times are not exceptional but normal in the theoretical as contrasted with the temporal meaning of the word. The invisible hand, or its somewhat less adequately veiled modern equivalent, might then perhaps be relied upon to direct us, at least temporarily, in the way we should go. In the depression phase of cycles, however, this is surely dubious policy.

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* The implication in the motto of Marshall's *Principles* that economic phenomena do not occur in jerky fashion is dubious. *How* long the "long-run" is depends upon the nature of the equilibrium which is in the mind of the observer, and this, in turn, upon environment, prospective demand and supply conditions, and the like. There may be sudden shifts from one sort of partial equilibrium to another.

It is true that, except momentarily, we cannot expect even approximately perfect equilibrium in a dynamic society. The most we can hope for is a *tendency* thereto. There is danger, however, that we shall succumb to the domination of theoretical concepts which lead us to read into existing recognized disequilibria a persistent movement in the direction of equilibrium, which is, in fact, a delusion. There will be no such movement unless we can count on the predominance of rational action. Events of the past few years have clearly shown, however, that for considerable periods of time men will act under the stimulus of a fear which is either itself irrational or is a rational apprehension of irrationality on the part of society at large. (In the ascendant phase of a business cycle the counterpart of this fear is an equally irrational hope which may culminate in wild speculation. Such hope, however, is, *per se*, far less devastating than fear, and, so far as employment of men and resources *as a whole* is concerned, produces a situation akin to that which we would expect in a status of equilibrium.) In an environment in which fear is in the saddle, traditional economic theory, in any of its forms, is a broken reed. It does not contemplate such a circumstance, and we have, in consequence, in the past few years witnessed a helplessness and confusion of counsels among economists, as to what if any positive action should be taken to restore a ruined economic world, which is hardly less complete than that manifested by business men and politicians. The only courses on which there is anything like a consensus of economic opinion are those which require an atmosphere of rationality, or at any rate of confidence, such as has been conspicuous by its absence.

It would, no doubt, be difficult to build a theoretical system with fear as a major element in its psychological presuppositions, since fear, in its very nature, expresses itself in erratic and unpredictable ways. But if economics is to be other than mental gymnastics, a mere exercise in abstract logic without regard to the reality of its postulates, if, in a word, it is to be an art, it must take into account, to a much greater degree than has hitherto been common, the motives by which men are influenced in their economic activity in the varying states of what may perhaps be called the social mind. It is a part of the art of economics to restore the social mind to sanity. Such sanity may or may not, "in the long run," emerge automatically. There is reason to doubt that it will. Institutions which in the course of time have been developed in limitation of *laissez-faire* may lead us to accept a quasi-equilibrium in which a sizable section of any given potentially productive population would remain permanently unemployed. The world is afraid of production, cherishes illusions about over-population,* limits competition, throttles trade, worships a means as an end in being ready to sacrifice human welfare for an allegedly sound standard of value, and has long lain prostrate under the influence of the monetary calculus. In such an environment, dislocations, instead of being self-curing, may breed their kind at a rapid rate. Yet, in academic as in other circles, we have heard a good deal about "wholesome bankruptcies," "necessary deflation," and other allegedly essential means to the attainment of economic health. All the bankruptcies and the deflation which actually occur are supposed to be "right" in the sense of promoting that ideal equilibrium pathetically imagined to be in process of gestation. That they cannot possibly be "right" unless they are respectively partial and relative is far from being fully recognized. All business will become bankrupt if selling prices continue to fall relative to fixed costs. Business cycles may perhaps be regarded as essential to economic adjustment, but we are now suffering not a business cycle but a progressive disintegration from which we can be delivered only by aggressive action or by sheer luck. We must abandon attempts to restore the wasted body by pulling in the belt. Confusing economy with abnegation, forgetting that economy requires not renunciation but the active utilization of resources in the most productive way, and noting haltingly, if at all, that many assets, first and foremost of which is labour power, inevitably waste by the mere lapse of time rather than by use, the economic profession, as a whole, not only fails to make a thorough canvass of means of avoiding a general restriction of enterprise, but even approves so-called economies which, at best, fall into the category of self-denying ordinances.

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* In the sense of having too many people for an assumed fixed number of jobs.

It is a commonplace observation that engineers tell their clients how to do things, but that economists tell them that they can't be done. There is some truth in this quip, and the reason for it traces back to the economist's unwarranted assumption of an automatic and healthy mechanism which he hates to see disturbed. Economic practice, however lame, is thus not infrequently in advance of theory. This is preeminently so where large-scale quasi-permanent unemployment is in question. There is no place for this phenomenon in the more orthodox economic theories; it just ought not to be. But cruel facts teach us that we are in urgent need of a science of economic pathology, therapy, and prophylaxis, to complement our fairly well developed and progressive studies of the anatomy of the economic organism and to restore a healthy motivation in a disordered economic world. Apart from researches in the phenomena of business cycles, which do not go much beyond pathology, we have the beginning of such a science in the work of certain economists, among whom J. M. Clark and J. M. Keynes are outstanding, but there is nothing which has yet attained the status of generally accepted doctrine. Lay expedients for dealing with unemployment, such as insurance, short time, shared work, dismissal wages, and the like, though commendable on humanitarian grounds, are open to the objection that they are, at most, merely unguents, and that they not improbably contribute to the disease they are designed to alleviate. It is clear that, so long as any individual prefers the fruits of work to leisure, there is no inherent reason why the opportunity to work should not be available to him. It therefore follows that compensation for apparent lack of work can never command convinced approval, and it is the task of economists to point out the better way.

Paradoxical as it may at first appear, it is more difficult to deal with partial than with widespread unemployment. Unemployment confined to one or, at most, a few trades presents difficult problems of transfer from one occupation to another, but general unemployment can be readily eliminated. The task of organizing competent workers, of diverse training and talents, to produce for their own consumption is technically simple, especially in countries in which international trade plays a comparatively minor role.* Instead of seeking, through manipulation of monetary phenomena or otherwise, indirectly to induce the ideal state of equilibrium, is it not better to attack the problem of unemployment directly and thus assure immediately the most important desideratum of such an equilibrium, viz. full use of human and material resources? We could well stand disequilibria if they were not accompanied by terrific reduction in total output, and were thus merely a matter of the distribution of an unreduced national income.

The failure of economists as a group to protest vehemently against the senseless waste in general unemployment, their disposition to accept it as an inevitable visitation, the bafflement, confusion, and strife which they have shown in the presence of the disasters of the past few years, have gone far to paralyse appropriate social action. Their attitude has been due not only to an inadequate scientific literature on economic pathology, but also to a failure to distinguish social from entrepreneurial costs, and to that political element in economic thinking to which Professor Gunnar Myrdal has but recently drawn attention. General unemployment, and heavy reduction of total output, is a quite avoidable adjunct of business maladjustments. Adjustments can indeed proceed with greater speed and precision, and with infinitely less pain, on the basis of practically full employment than in the ghastly milieu of multiplying maladjustments which has of late confronted us. Prevailing theory, however, casts a veil over this truth.

The forerunner of the theory of general equilibrium is the notion of scarcity. Scarcity being basic in the whole range of economic phenomena, all of our economic thinking has developed around this concept. Economizing and saving have become almost synonymous terms, and we have forgotten to ask what the saving is for. Instead of saving on one kind of outlay, or on immediate consumption, in order to expand outlays in another direction and acquire increased future, instead of present goods, we have glorified saving for its own sake. Mere pecuniary saving, of the type which has been fashionable in recent years, far from being a virtue is a positive, but very inadequately recognized, vice. There has been an epidemic of the disease of Midas, and economists have been by no means completely immune. The passion for liquidity has led to a rather rapid deliquescence of our whole economic structure, and solid values have crumbled away, or failed to come into being, while we have been pursuing a mirage. Not only is miserly saving in times of economic crisis, if not at all times, vicious, but even investment in equipment similar to that which is currently not being used fully, or at all, is a social waste. The output of consumers' goods should be expanded, until all but obsolete equipment is engaged, before new investment will, in general, be economic.

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* One of many possible methods of organization is suggested in my book *The Abolition of Unemployment*, Princeton University Press, Princeton, N.J., 1932.

Scarcity and cost, of course, go hand in hand. The fact is, however, that in times of widespread unemployment, labour, while still being scarce in the sense that the entrepreneur cannot get it for nothing, has no unincurred social cost at all.* Labour-time cannot even be stored. It is either embodied in production as it evolves or it is for ever wasted. Regardless of the wages actually paid, it would therefore cost society at large (the nation) nothing whatever to hire such labour. *Any* output deriving therefrom would be unalloyed social gain. The same is true of unemployed equipment. It is clearly possible, without any money outlays, to bring such labour and equipment together in production, the labourers and owners of equipment being paid for their services in the distributed products turned out. If ordinary money is used it can be recovered in the sale of the products to those who had co-operated in their production. All discussions of the cost of putting an unemployed man to work are therefore misleading and, indeed, silly. There *is* no necessary cost. It is true that if unemployed men are set at producing things which yield a very slight return in satisfactions, that if new rather than existing equipment is necessary to this ill-advised production, that if existing potentially useful idle equipment is thus kept indefinitely out of employment, and that if previously employed, rather than unemployed, men are diverted from their present tasks to the provision of such equipment, the net gain from the production of the previously unemployed would not, as is otherwise possible, be their full gross output, but would be nullified in greater or less degree by futile costs. If the hitherto unemployed do not bear these costs, they must, in one way or another, be imposed upon the remainder of the society. Ordinarily this means increased taxation, heavy public borrowing, and possibly runaway inflation. Extended programmes of *public* works are almost always open to these objections, and are therefore, not without justification, enthusiastically opposed by anti-socialistic opinion and even by such liberals as do not lean heavily toward the left. The economic flaws of such proposals are at least the indirect cause of their political rejection. Public works programmes would, at most, *reduce* the waste of unemployment, whereas it is quite possible to abolish it altogether. There is no good reason why the society should not, within the range of the productive possibilities of *all* of its members, produce those individually appropriable commodities which represent the freely expressed desires of its individual members translated into demand through the purchasing power obtained by the sale of their labour or any other factor in the productive process.

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* There are comparatively few unemployed persons who would not prefer work to enforced idleness.

A public works programme which provides a more or less remotely desired output is strongly suggestive of work for exercise only. It provides employment, indeed, but so does the digging and refilling of holes. Whatever one's economic philosophy may be, it can hardly be irrelevant to take account of consumers' desires in the order of their intensity. Unless we do so, workers under State aegis will either get a lower real return than they might have or someone else will be exploited for their benefit. Such exploitation might or might not be greater than would occur under a dole, but it is, in any case, an avoidable evil.

If, as is necessary in times of crisis, a central organization must supply the opportunity for work which individual enterprisers fail to provide, on what reasoning must it go in for public works of submarginal ophelimity rather than the provision by the newly employed workers of the goods which they themselves most want and will take as soon as, by the sale of their labour, they acquire the necessary purchasing power? When the system of more or less free enterprise breaks down, and must be complemented, why should we provide any other than those commodities which would be taken by producer-consumers if they were working as usual in private industry? Is not the advocacy of public works rather than of the production of privately appropriable commodities a surrender to popular prejudices on the alleged over-production of the ordinary run of commodities?

If economists would adhere to certain simple postulates, to which lip-service among them is almost universally given, they would immediately recognize that whatever the conditions, and whatever else may be done to restore a badly shaken general equilibrium, the first task is to organize unemployed workers (and equipment) on marginal utility principles, that this could be done substantially without cost, and that it is perverse to attempt to secure the end of full employment by ineffective indirection, in which, at best, a large time-lag is inevitable, when it can be attained immediately by direct measures involving a lesser deviation from the cherished principles of individualism.

The postulates which should be kept steadily in mind are as follows:

(1) *The only sound reason for refraining from work is the preference for leisure over the potential fruits of such work.*

(2) *While the economic millennium of universal free goods is still unattained there can never be any real lack of work in the sense that there is nothing to be done.*

(3) *The supply of labour provides its own demand.* Though the old pious adage that with every mouth there comes a pair of hands is not always true, it is indubitable that with every pair of hands there comes a mouth together with a desire not only for gustatory satisfaction but for far more of other goods than the hands can fashion.

(4) *Density of population has therefore nothing whatever to do with the problem of employment.* The estimates of prospective unemployment based upon the number of adolescents coming to maturity should be treated with a scorn which they seldom receive.

(5) *Per capita potentialities of production are irrelevant to employment.* If the continued reminder of the indefinite extensibility of human wants is insufficient to guarantee the acceptance of this postulate, it may be supported by the fact that unemployment is not less in industrial countries of relatively low than in those of relatively high standards of living.

(6) *Unemployment is its own chief cause.* Maladjustments in production can never be solved by changes in absolute but solely by changes in *relative* output of the various economic goods. A decline in the output of one, or several, commodities should therefore always be accompanied by an at least compensating increase in the output of others. If this does not occur automatically, or is not provided for by artifice, total demand will fall *pari passu* with total supply (since the supply of one good is the demand for another). Contrariwise, if appropriately distributed supply, to any amount, is undertaken, it will automatically create an equivalent demand.

(7) *Consumption goods are the whole end of the economic process, and investment has no purpose other than to increase the supply of such consumption goods.* When capital goods are in even apparent over-supply,

when "excess" equipment is general, it is perverse to urge and seek to create favourable conditions for new investment. The appropriate procedure is to increase the output of consumption goods until inadequacy of capital equipment becomes the limiting factor. New investment will then appear automatically.

(8) *General prosperity is dependent upon production and consumption, and on these alone.* Contractual pecuniary relationships are a determining factor in *distribution*, but, even while being preserved, need have no effect on general production. When a more or less conscious struggle over distribution results in stagnation, the Gordian knot can and should be cut by arrangements which secure full employment and production. Whatever the distribution, it is then easily possible to give to *all* a larger absolute income than could be obtained, by even those most favoured in distribution, from the greatly reduced national income which attends general unemployment.

(9) *There are only two categories of social economic costs,* (a) *labour and* (b) *abstinence from immediate consumption.*

(10) *The social cost of employment of otherwise idle workers is nil.* The great majority of potential workers would rather have jobs than leisure, and the enforced abstinence from immediate consumption which arises from a low level of production is infinitely more painful than the voluntary abstinence (which, with induced employment, would still leave a larger stock of immediately consumable goods than would be available if employable workers remained idle) necessary to provide generously for the future. Since, therefore, there are no social costs of such production as involves otherwise unemployed workers, and existing, or even new, equipment,* the product, whatever it be, is unalloyed social gain. If entrepreneurial, or fiscal, pecuniary costs are incurred, they can be justified only on the ground of administrative convenience, are not necessary, are compensated by equivalent gains elsewhere, are merely a matter of distribution, and are an optional incident to the gain in total output and income.

If one prefers to speak in terms of opportunity costs, the provision of full employment involves the sacrifice of the "opportunity" for imposed and detested idleness in favour of remunerative work, and of enforced abstinence in favour of either volitional abstinence from, or immediate consumption of, a mass of goods which would otherwise never have come into existence.

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* New equipment can be provided without any net social cost so long as any capable workers are left without full employment.

These postulates are simple, but they are constantly overlooked. Increasing intellectual specialization has led to emphasis on one or another aspect of things economic until the inability to see the forest in the maze of trees has become general. The older economists paid too little attention to pecuniary phenomena. In the reaction against this attitude there has been a disposition to forget the fundamental truth, which absorbed the attention of earlier writers, that man does not live by money and that the fundamental condition of prosperity is the maximum output of consumers' commodities chosen with due regard to marginal utility and cost. A return to this more or less ancient truth will be accompanied by an insistence upon full employment and production whatever may be the purely *business* vicissitudes which we may be compelled to undergo.

Indirect methods of promoting economic equilibrium, and of thus securing increased employment as a by-product of business adjustments, should certainly be pursued wherever they offer a reasonable prospect of success. Specifically, we should urgently seek to establish a monetary system which would not provoke gratuitous maladjustments in the business situation, and we should, perhaps, try to correct constantly occurring uneven keels by monetary manipulation. We cannot afford to wait, however, until such methods, if ever, will procure permanent full employment. The latter, by far the most important objective of practical economic endeavour, can be attained *directly*, regardless of monetary aberrations. Directly induced permanent production and distribution may give "artificial" prosperity, but are we to prefer "natural" misery to prosperity attained by artifice? There does not seem to be much reason for objecting to "artificial" prosperity so long as it persistently gives us the things we desire and of which we are in need. Nature is still somewhat niggardly, and we must woo her with a modicum of art. May we not hope, therefore, that political economy will before long regain the place from which it was ousted by economics?

ECONOMIC THEORY AND HUMAN LIBERTY

T. E. GREGORY, *University of London*

Elles vivent, les nobles idées. Elles vivent, non point comme le voulaît Platon, stables et improductives au sein de l'être eternel, mais au contraire, d'une vie ardente et féconde, toujours identiques et toujours nouvelles, disposant sous les mêmes cadres une infinie variété de dessins.—GONZAGUE TRUC, *Les Idées Vivent*, 1927, p. 7.

I

ECONOMIC theory and political science alike are concerned with the problem of human liberty and its relation to the organization of the economic life of the community. A score of commonplaces attest the importance of this relationship: that the "magic of property turns sand into gold"; that property is a method of self-expression and an extension of human personality into the realm of goods; that the propertyless man is the prey of circumstances and therefore unfree since he is unable to secure his own destiny; that the state of slavery is *defined* by the denial of self-determination to the slave, for he is the instrument of the self-expression of others. Equally obvious are the facts that Law is largely concerned with the regulation of the rights of persons over things, and that economic and social history are largely a record of the origin and development of property rights and of the conflicts between groups to which they have given rise. In this essay I am concerned with one important aspect of a complicated subject: what light does economic theory throw upon the conflicting views which have been developed by various schools of writers as to the best methods by which human liberty can be furthered, in as far as human liberty is dependent upon the way in which property rights are recognized by law and upon the manner, therefore, in which the economic framework of society is organized?

My task is essentially, therefore, to review existing or potential types of economic organization in the light of that criterion of liberty which is implicit in the development of economic thought. Such a task, however, implies that any criteria developed by economic theory can be validly applied to successive or possible types of economic organization: a claim which would be denied by those who stress the relativity of economic institutions and the emotions and sentiments evoked by them. The concept of the relativity of economic institutions derives its importance, not from the world of fact, but from the world of logic. Certainly it is an indisputable historical fact that economic institutions change; that each successive system has evoked passionate loyalties (so that men feel themselves in some sense "free") and that the study of the reasons why one set of institutions has given way to another has the most profound significance from many different points of view. It does not, however, follow from this that economic science is not in a position to pass judgments upon such systems, or to compare their intrinsic merits in the light of standards it itself has chosen. The mere fact that economic science itself is passing through a continuous process of change is beside the point, even if it were not the case that the fundamental concepts it is necessary to employ in connection with our enquiries have remained relatively unchanged; for the essential circumstance is that, given the state of theory at any given moment, it is possible to range existing or alternative or hypothetical social organizations in an order determined by the standards, such as they may happen to be, which are adequate in the light of existing theory. The judgments which economic theory can pronounce are not invalidated by the fact that certain objective causal sequences are necessary before one state of society can pass into another, or before a given state of society can come into existence: in the existing state of economic theory we can pronounce one state of affairs to be intrinsically more desirable than another without necessarily assuming that that more desirable state will either come into being, if it does not already exist, or persist, if it is already in being. It may indeed be the case that the world is passing from a more to a less desirable state from the standpoint of just those particular standards which form the topics of the present discussion; but the fact that social evolution is pursuing a particular course does not prove that it is the more *desirable*. It is, of course, also true that the mere fact that such imminent changes can be condemned from the standpoint of economic theory will not prevent their coming into existence, though it is the case that judgments of value can influence opinion, and opinion can modify the trend of events. Consequently, unless one commits oneself to an absolutely fatalistic interpretation of the course of events in time, to pass judgments of value is to influence the future, though it may be only to an infinitesimal degree. I am, however, only concerned at this point to guard myself against the preliminary objection that neither economic theory nor, for that matter, political science is in a position to pass judgments *at all*, on the ground that each system of economic organization is historically determined, unavoidable as a fact of the objective world and therefore immune from criticism. The adherents of economic fatalism, or of historical methods of formulating economic principles, have never, in fact, abstained from criticism of the capitalistic framework of society, though that, too, is a product of historical evolution and logically, therefore—from the standpoint of these various schools of thought—ineluctable.

Our first task must be to establish the essence of the concept of human liberty which underlies the corpus of economic theory. What, in other words, is the real content of that "obvious and simple system of natural liberty" of which Adam Smith wrote, and which, in perhaps more sophisticated form, has served as an inspiration to successive generations of economists who have followed the liberal tradition? I am concerned here neither with the metaphysical bases of eighteenth-century thought, nor with the doctrine of the pre-established harmony of interests, nor even with the question of the motives (as distinct from the intentions) operative in economic life. It is possible to show that Adam Smith himself * and the classical economists in general were willing to admit exceptions to the rule of free and unrestricted competition, still more to the coincidence of interests of all engaged in the economic process, but the concept of human liberty associated with the teachings of the masters and their followers is not, in its essence, affected by such considerations. For the doctrine of *laissez faire*, however limited, is not the colourless negation it is sometimes represented to be. Human liberty, in the economic sense, *implies the free unfolding of human personality in the sphere of economic relations, in the expectation that it is by this means that the sources of economic welfare will most rapidly expand.* From this point of view the essential element is not the *motives* which inspire men in economic life but the opportunities which the economic system affords for the association of capacity with the task to be performed. Privilege and restriction on the free choice of occupation on the ground of nationality, race, class, or sex imply a waste of human resources, and therefore a net loss of productive efficiency and, as a final consequence, of material welfare. Competition is not an end in itself, but a means of selection which is free from the elements of nepotism and favouritism which might otherwise obtrude themselves; if systems other than the competitive one can fulfil this end better, they will in the long run establish themselves. It is important, moreover, to observe that the free expression of human personality involves not only liberty in the sphere of the *creation* of economic values but also liberty in the sphere of the *consumption* of economic values. If a community has to consume what it is given instead of what it wants to consume, there is a net loss of satisfaction—still more, there is an infraction of personality.

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* For a recent critical analysis, *v.* Jacob Viner, *Adam Smith and Laissez Faire*, in the commemorative volume *Adam Smith*, 1776–1926 (Chicago: University Press, 1928), pp. 116–55. I hope to publish at an early date an essay systematically exposing the misconceptions currently prevailing as to the attitude of the classical economists towards labour and the labour problem. At present I content myself with saying that even McCulloch, the butt of Carlyle and of his later imitators, the *étatistes*, does not deserve the charges of inhumanity and of *principien-reiterei* of which he is constantly accused.

Thus, from the standpoint of economic theory, the onus of proof lies upon those who would interfere with or restrict the expression of personality, whether in the sphere of production or of consumption. To prove that free competition is dangerous in certain cases, or that freedom of consumption of certain kinds of goods produces effects destructive of self-respect in still other cases, is not to invalidate the principle that freedom of choice is the best general rule in both cases: on the contrary, the rule is confirmed by the nature of the objections brought against it in particular instances. Nor is the presumption in favour of freedom destroyed by insisting that liberty may at times involve a conflict between ends; that industrial freedom and free choice in the consumption sphere cannot always be reconciled with ends also regarded as intrinsically good. It is the essence of a free society and of the libertarian way of life that such conflicts should arise; they are unknown in a despotism, but it does not follow that, on balance, the latter is the intrinsically more desirable kind of system. To insist upon the possibility of conflict of ends in a free society is to stress the obvious; to infer that *because* there may be conflict the free society is intrinsically less desirable, is simply to beg the whole question at issue.

Whatever the intrinsic merits or demerits of the economic conception of liberty, modern capitalistic society is both its product and its embodiment. The rationalistic-utilitarian attack upon the abuses of the *ancien régime* was one of the main *intellectual* forces moulding society in a new direction: in spite of all the restrictions which even in a free society obtain to-day and notwithstanding the growth and development of new absolutistic Societies, the institutions of the Western World are primarily an embodiment of the view that it is only through the absence of restraint upon individual efforts at self-expression that happiness and progress are possible. A great part of economic theory is nothing but an elaborate exercise upon this central theme.

II

We have, however, to answer the fundamental criticisms which the avowed opponents of the present order bring against it: that if liberty is the child of the capitalistic order, it is a child devoured by its own parent. It is the inconsistency of liberty with capitalism which is the basis of all the revolutionary philosophies of the last hundred years, and even if it is the case that the successful revolutionary parties of to-day show a revolting inhumanity in their endeavours to translate their principles into practice, the fundamental objections which they bring against the existing order may still be true. All that may be revealed by the new régimes of force may be the incompatibility of liberty with such régimes—and even this cannot be shown conclusively so long as it can be argued that such force as has to be employed is the result of the provisional, transitory conditions of the moment. It does not follow, without further investigation, that the attack upon the existing order cannot be sustained. Before dealing with the position under alternative régimes, therefore, the case against the present order must be examined.

The charge, in brief, is that capitalistic society is inconsistent both with security on the one hand and equality on the other, or, to put it into other terms, that capitalistic society breeds both insecurity and inequality, and that liberty is consistent with neither. These two evils, though broadly representative of the spheres of production and consumption respectively, are interconnected. For insecurity involves differential opportunities for enjoyment, and inequality in consumption (say of educational facilities) involves differential opportunities of employment and of accumulation. Hence not only are these evils interconnected, each producing the other, but they are cumulative over time, since they affect not only the present generation but those who look to the present generation both for training and sustenance. These are serious charges; it remains to be seen whether they can be answered.

I. That insecurity and inequality are facts is something which cannot be denied even by the most bigoted admirer of the present order, at a moment when unemployment must directly affect some twenty millions of people in the industrialized countries alone, together with their wives and children. An immense mass of unhappiness is represented by these appalling figures, which no easy optimism can explain away. Unemployment, in addition to involving gross differentiation in rights to consume, also represents the results of the generally insecure conditions of employment under present conditions.

II. A series of detailed questions therefore arises:

(*a*) How far are such conditions caused by capitalism?
(*b*) How far are such conditions curable under capitalism?
(*c*) What hope is held out by alternative systems as a cure for these evils?
(*d*) Assuming that other and alternative systems of society can really destroy insecurity and inequality, what price would have to be paid for these advantages?

(*a*) Before the balance sheet of capitalism can be properly drawn up, it is necessary to distinguish between effects properly due to capitalistic economics and effects produced by agencies with which capitalism as such has nothing to do. Wars have been waged by capitalistic governments as by non-capitalistic ones, but in so far as the world is still suffering from the consequences of the outbreak of 1914–18, such consequences are not due to capitalism but to war. Again, in every period of society individuals are subject to personal accidents and misfortunes—the mere fact that capitalism is unable to prevent similar personal tragedies is no indictment of capitalism. Again, the working of the capitalistic system is liable to be influenced adversely or beneficially by the degree to which the necessities of that system are understood or misunderstood by governments: if the wrong policy is pursued, even if pursued in the presumed interests of capitalists and capitalism, the consequent sufferings and loss of material welfare are not due to capitalism but to the mistakes made by governments. All this is, of course, obvious enough, but nothing is easier or more popular than the attribution to the capitalistic system of an impressive series of faults, some of which at least are not in any way to be explained by the mere existence of a certain kind of economic system.

The essence of capitalism is that it is production for an impersonal market by productive units whose only guide to correct action is the present and prospective course of prices, and whose chances of success are governed by the accuracy with which the course of prices is gauged and with which the quantity supplied is in adjustment with the quantity demanded. The fact that much capital is required, a far-reaching degree of division of labour is involved, and that constant changes in process and method upset even the far-seeing plans, are facts not due to the existence of capitalism but to the technical methods of production. No doubt the existence of capitalism has stimulated economic change, but the *essence* of capitalism is production for, and dependence upon, a market dominated by freedom of choice for the consumer.

In these circumstances it is inevitable that the system should secrete some degree of insecurity, but the insecurity so produced must be attributed to the right causes. Even under a communist or collectivist régime, indeed under any system of production other than the purely stationary state, changes of technique must lead to *some* unemployment. What such a system could perhaps avoid are: (1) the social *consequences* which flow from unemployment, due to this or any other cause; (2) the special causes of unemployment and insecurity which flow from the essential features of the capitalistic régime. What these special causes are needs no prolonged description: insecurity arises *both* from the special risks attached to a particular branch of production and from the insecurity which affects all branches together from time to time. The great causes of insecurity are the trade cycle and the competitive nature not only of specific productive units *inter se* but of branches of industry against one another. So long as capitalism lasts, insecurity to a smaller or greater degree will persist.

It follows also from the nature of the capitalistic system that it should generate inequality. It is not true that capitalism *alone* breeds inequality: the moral inequality implied by slavery transcends in *quality* even the grossest inequalities of a quantitative kind revealed by the present order. Moreover, the magnitude of the existing inequalities is not a *direct* effect of capitalism at all; it is due to a growth of *scale* which indirectly, it is true, may be associated with the existence of capitalism, but which is certainly not implied in its mere existence. But a system of society which apportions reward according to the degree of success with which the market situation is gauged and which permits the rewards of greater foresight to be inherited, whilst at the same time employing technical processes which limit the powers of the individual by forcing him to specialize, necessarily involves inequality. Though insecurity and inequality are not exclusive attributes of capitalism, and though to capitalism are sometimes attributed effects which should properly be assigned to other causes, there remains some truth in the allegation that under capitalism *some* measure of insecurity and inequality is necessarily involved.

(*b*) How far, however, are inequality and insecurity inconsistent with liberty? There is complete absence of insecurity and a considerable degree of absence of inequality in a prison, but it does not follow that a prisoner's state is to be preferred to that of a man whose economic position is insecure, and whose income is at a minimum. The relationship of insecurity and inequality to the concept of liberty is more complex than appears at first sight. If human liberty implies the possibility of unfolding personality, we have to ask not whether capitalism generates insecurity and inequality, but whether it necessarily generates *those forms* of insecurity and inequality which are inimical to liberty. Our age, half-captured already by the opponents of capitalism and fearing uncertainty perhaps more than anything else, is apt to overlook the circumstance that certainty is only tolerable if that which is certain is itself tolerable. The problem, then, is primarily one of discrimination.

Some forms of insecurity are clearly inimical to human personality. The sordid struggle at the dock gates of the casual dock labourers is inimical to personality because in its extreme form it prevents rational calculation of earnings and a settled standard of life. The spur which uncertainty gives to individual effort is in this, as in other cases, much outweighed by the generally depressive effects of the kind of life involved. The fact that certain kinds of labour contracts are even in the capitalist world *long-term* contracts, e.g. school teachers, civil servants, the administrative and executive staffs of the larger enterprises, indicates that certain kinds of creative effort are only possible if the mind is not upset by anxiety about the future. There can be no doubt that the insecurity and unemployment associated with cyclical fluctuations of trade are on balance an immense evil: a form of involuntary leisure leaving behind it nothing except a legacy of deterioration of personality and decreased economic efficiency.

The problem of inequality appears to me to be on a somewhat different footing. I cannot share the view expressed, e.g., by Professor Tawney that economic inequality is itself *intrinsically* an evil: what is evil is the denial of the expression of personality to those whose remuneration falls below the minimum in amount and regularity necessary to maintain a certain standard of decency and self-respect. Edmund Burke's protest that he "could not pity a man merely for being poor," whilst valid enough against those who would sacrifice the chances of experimentation which the existence of large private fortunes afford, in order to obtain a somewhat higher general average level of well-being, ought not to blind one to the effect that there *are* incomes so low that they destroy personality, and that when one reaches these levels of economic inferiority the spur which the hope of rising in the world affords simply does not exist as an effective agency of economic progress.

(*c*) Admittedly, then, the capitalistic form of production—apart from all personal elements of misfortune, and apart also from the insecurities and inequalities associated with rapid changes of technique—involves some forms of insecurity and inequalities which are inimical to human liberty. The real task of the liberal economist should be, not to pretend that these forms do not exist, but to analyse to what extent they are remediable without fundamental alterations in the existing order.

There is no proof whatever that capitalism is necessarily working towards catastrophe, either because the march of technique means an absence of further wants to be satisfied or because the accumulation of "surplus values" involves the definitive replacement of the factor of production labour by the factor capital. The present instability of capitalism can be accounted for satisfactorily on other grounds. Nor is there any reason to doubt that, apart from measures intended to serve as palliatives rather than as cures, a considerable reduction in the volume of the evils complained of is possible merely by applying to the situation complained of the philosophy inherent in capitalism itself. Why has the depression which set in in the autumn of 1929 lasted so much longer than the depressions of the nineteenth century? I answer unhesitatingly because the precedent boom was allowed to go on unchecked to a much greater extent, and because again, in the name of "stabilization," the necessary corrective measures have not been applied. Instead of insisting upon the vital necessity of greater flexibility, an increasing degree of *inflexibility* in all directions has characterized the last four years.

It is no answer to say that the measures which would have cured the depression, had they been applied, were impossible of application because "public opinion would not have tolerated them." No doubt patients very often refuse to follow the advice given them by their doctors, but if they subsequently die their death is not usually regarded as evidence of the inherent wickedness of the advice given. No reasons have so far been advanced, except irrelevant ones, that there is no cure for much of the evil complained of: if the patient dies it is because he will not listen, not because he is smitten with an incurable disease.

The palliative measures which appear themselves as causes of the continuation of the depression—I am thinking primarily of systems of unemployment insurance (including the disguised systems on the lines of the quasi-compulsory levies so popular in the U.S.A.) and of "finding work"—are in themselves not inconsistent with capitalism, provided only that it is recognized that the fundamental problem is to confine the application of such measures to relatively modest limits *by limiting the degree of unemployment to whose alleviation they have to be applied.* A long-trend policy will take into account the absolute necessity of not allowing human efficiency and personality to deteriorate. The fundamental technical necessities are to vary the amount of relief in terms of money as the price level alters, to make a clear-cut distinction between the re-employment of labour in old and new directions, and to throw upon industry itself the cost of relief—otherwise neither labour nor capital will have the least incentive to adapt itself to the altered circumstances.

So far as inequality is concerned, the worst forms of inequality will be removed by the mere reduction in the volume of unemployment. There is, however, more to be said upon this particular matter. Since capitalism stands for competitive offers to the consumer (including the employer), classes of ability and of talent which would not otherwise have the opportunity of making an offer to the consumer are given the chance to do so. To put the matter into somewhat more precise terms, though capitalism undoubtedly increases the degree of inequality as the scale of operations expands and the highest rewards increase in absolute magnitude, nevertheless it also works against inequality by increasing the opportunities afforded to each individual of finding that particular market for his talents and powers which will give him the best price available. It is significant that though opponents of capitalism are continually referring to the increasingly monopolistic tendencies of the age, the new and expanding industries—cinema, radio, and the automobile—are dominated by personalities who owe nothing to advantages of birth or superior economic inheritance, but who are, in the truest sense of the words, the architects of their own fortunes.

III

(*d*) There are only two alternatives to the existing order. It is possible to attempt the removal of insecurity and inequality by means of a Collectivist or of a Distributionist Society. Either all instruments of production are vested in the State or society is so organized that the number of individual owners of property in the means of production is increased. At the present time public opinion is almost completely obsessed by the first alternative, and not sufficient attention is paid to the possibilities of the second. But "employee ownership" in the United States, the repeated attempts at co-partnership in Great Britain, the break-up of the great agrarian estates of Middle and South-Eastern Europe, and—in certain of its aspects—the National-Socialistic movement in Germany all embody the fundamental principle of Distributionism, that a stable society can only be erected upon the basis of a widespread ownership of property-rights in the instruments of production. What Collectivism attempts to achieve by replacing many owners by one, Distributionism attempts to achieve by replacing few owners by many.

We must now take it for granted that neither type of society can come into existence except as a result of revolution: force is the characteristic instrument of all such economic policies. But it does not follow that once the revolution is accomplished (and revolution implies insecurity and inequality) such societies would not be stable, the degree of their stability depending upon the degree of force at the command of the State. What is important for our purposes is to ascertain the degree to which they are capable of removing inequality and insecurity. The answer depends, I think, so far as regards insecurity, upon the extent to which such societies are subject to technical change, and, as regards inequalities, upon the degree to which inequalities of remuneration are necessary as economic stimuli. If it were possible to imagine no substantial changes in technique or in population, and a deliberate control over changes in consumption (i.e. a Planned Economy, at least so far as standards of consumption are concerned), there might still remain uncertainties arising out of the fluctuations of the harvest and out of personal vicissitudes, but (given also a stable population) no inherent structural changes being threatened, economic society would reveal itself more secure than it is now. But if population changes and technological changes are assumed, unemployment or, at least, the necessity for changes of occupation, would reveal itself as it does now. The Russian experiment is in many respects a very interesting one, but it appears clear that labour turnover is immense, that the Soviet is faced with the problem of transferring labour on a large scale from completed projects to new kinds of enterprise, and that the problem of Russia in these respects is in all respects the same as that of a capitalist society at the end of a period of boom. Given technical changes, a distributionist society is faced with the danger that the existing distribution of property is inconsistent with the new demands of technique, just as the existing distribution of property may be inconsistent with changes in population—population change being indeed the greatest single factor militating against a stable agrarian régime, both historically and at the present time. It follows from what has been said that, unless change can be successfully resisted, the problem of insecurity will remain and these alternative societies will be driven to the use of palliatives of much the same kind as those at present employed by capitalism.

It is, perhaps, otherwise with the problem of equality, though such confirmation of the egalitarian point of view as may be derived from Russia is most inconclusive, since the presence of smaller absolute differences in the level of incomes is not the only factor distinguishing Russia from the capitalist order. It is *a priori* probable, however, that for many men and women the intrinsic fact of inequality *per se* is a more important matter than the absolute degree of inequality, and that (what is really more significant) the amount of remuneration offered is only one element in a highly complex psychological situation. It is, I think, probable that much of the existing inequality represents merely windfall gains from the standpoint of the individual and that economic society is capable of functioning with a much greater degree of equality than at present persists.

One must not, however, overlook the price which has to be paid for the greater measure of security and equality postulated. These alternative systems are only capable of yielding these advantages in a greater degree than the present order in so far as they imply a *less progressive type of economic society*. Security, we have argued, is primarily a function not of forms of ownership but of the pace of industrial life; the real price which would have to be paid is, therefore, a less rapid development of the general standard of well-being. This argument applies more particularly to security: as regards inequality it is true that the two alternative systems of society are both more consistent with equality than the present one, and it is true also that economists have probably exaggerated the extent to which absolute degrees of inequality are a stimulus to effort. An alternative society would not *necessarily* directly lose inefficiency because it was more egalitarian than our own. On the other hand, the general nature of such a society which makes equality possible would indicate that the general advantage lies with capitalism as an instrument for attaining welfare. But in the final analysis one arrives at the frontier between economic and non-economic choices; it is open to anyone to argue that in spite of some loss of economic welfare the intrinsic value of such alternative societies is the greater. This is an issue which cannot be decided upon economic grounds, even if it is capable of decision at all.

THE MAINTENANCE OF PURCHASING POWER

ALVIN H. HANSEN, *University of Minnesota, Minneapolis*

UNDER the system of private enterprise and the prevailing financial institutions, the money income of a community is paid out, for the most part, from banks through business entrepreneurs. If business men are optimistic and see prospects of making profits, operations are expanded, idle bank credit is utilized, more money is paid out to labour and the owners of other factors, and the purchasing power (in terms of money) of the community is increased. If, on the other hand, owing to unfavourable developments of a non-monetary character—such as the termination of the construction of a transcontinental railroad or of the fixed plant of a new giant industry, the decline of major industries due to technological developments, disturbances to world trade arising from political interferences, or, as is commonly the case, an abnormal expansion in the means of production as a whole—the outlook for making profits becomes gloomy, pessimism cumulates among business men, less of the available credit is utilized, less money is paid out to the community, the volume of spendable funds actively functioning in the market is diminished, and a vicious spiral of deflation is started.

In consequence of the world-wide depression, more than ever before the price system has been brought to the bar of judgment and is being widely challenged. We know from the work of Wicksell, Mises, Keynes, Hayek and others, that fluctuations in the money income of the community come about chiefly through the rise and fall of investment. The fluctuations of investment, we know from Wicksell, varies on the one side from changes in the prospective rate of profit, due in large part to technological developments, and on the other side from changes in the market rate of interest. If violent changes are taking place in these factors, enormous fluctuations may occur in the output of capital goods and in the money income of the community; and this is likely to bring about profound changes in the price level in the internal price structure, and thence, in turn, in the prospective rate of profit, so that this set of reactions once started tends to develop a cumulative process of economic instability.

The banker-producer bottle-neck is the vital point in the modern price structure. It was the hope of Wicksell, and more recently of Keynes, that unfavourable developments in the *real* phenomena could be offset by a vigorous counteracting monetary policy. If the prospective rate of profit were falling, it was thought that by making the terms of lending more favourable, the bottle-neck would not be contracted, and producer credit could be made to continue to flow out to the community at an undiminished rate.

The stability of investment is, however, under modern conditions rendered extraordinarily difficult as a result of : (1) such rapid shifts in industry as those of the last decade,* and (2) such violent disturbances in the international field as have arisen, for example, from the post-war erratic movements of capital.

The latter is, to be sure, a direct consequence of the Great War, and abnormal developments of this character might with some assurance be discounted in the future could we have any guarantee of universal world peace. Since this is, however, by no means certain, it is encumbent to inquire how the price system has operated under the impact of war and post-war influences, particularly those which have resulted in extreme variations in the balance of payments of debtor countries.

It is generally agreed that one of the major factors which brought about the drastic curtailment of the effective money supply (and, hence, the deflation of prices) in the last three years had its origin in the sudden cessation of the abnormal volume of foreign lending artificially stimulated by (1) post-war tariffs, (2) the erection of petty states, (3) debt liberating inflation movements, and (4) the post-war accumulated need for constructional activities of all sorts.

Roads, public works, factories, residences, apartments, office buildings, and public utilities were being erected in all parts of the world, stimulated by the abnormal influences traceable to the war. When the abnormal volume of foreign lending ceased, the gap in the balance of payments in debtor countries occasioned a heavy drain of gold, a contraction of credit, a dumping of exports from the debtor countries upon world markets and a closing of the markets of debtor countries to world trade. All this exerted a heavy downward pressure upon world prices and seriously disrupted the international industrial balance.

The disaster confronting international goods industries spread in a cumulative process to related industries until the general state of confidence was shattered. Under these circumstances the presence in the creditor nations of large gold stocks and an abundant supply of available bank credit did not avail.

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* See F. C. Mills's *Economic Tendencies*, National Bureau of Economic Research, 1932.

In the face of such demoralization—whether occasioned by rapid changes in technology or by political disturbances affecting the industrial intercourse of nations—the confidence of business men is likely to be so seriously disturbed, the prospect of a reasonable rate of profits is made so gloomy, that investment can simply not be stimulated by central bank action. And this was all the more the case in the current depression owing to the fact that the central banks throughout the world were in large part paralysed by unbalanced budgets and the cloud of new governmental issues hanging over the capital markets.

It was Wicksell's view that the rate of investment (and therefore the effective volume of monetary purchasing power) could be stabilized through counteracting the changes in the prospective rate of profit by means of artificially induced changes in the rate of interest. It appears from the events of the last decade, however, that the shocks, to which modern capitalism is subject, are so great that the gloomy outlook for profit-making occasioned thereby cannot be effectively overcome by central bank action. The flow of purchasing power is dammed up before it reaches the consumer, since the entrepreneur has not sufficient confidence in the future to utilize the available credit resources.

Supplementary to monetary measures aimed at counteracting the loss of business confidence occasioned mainly by non-monetary disturbances are the inevitable pressures upon costs forced tardily, but eventually, by unemployment and hard times. Historically this, indeed, is the essential process by which confidence is restored. It is a common fallacy—one which has seriously delayed revival in the current world depression—that cost reduction merely has the effect of causing a further fall in prices, and so an endless spiral of deflation. This view, so widely held by the business community and the general public, rests upon a wholly wrong understanding of the functioning of the modern credit structure and a lack of knowledge of past experience. With a drastic fall in costs, the entrepreneur again begins to feel solid ground under him. Courage to carry on is restored, stocks of commodities are liquidated in smaller volume, some new purchases are made, and so the commodity market is improved. It is just the drastic readjustment of costs that operates powerfully to restore confidence and tends to stop the decline in selling prices.

But if the disturbing forces of technology and war are on the increase, if the development of specialization and large-scale units makes the industrial system more sensitive to change, if the growing weight of taxes and fixed costs together with the increasing rigidity of the cost structure (vide railroad rates, public utility rates, steel rails, union wage rates, and the like) makes the economic mechanism less adaptable to change, it is clear that the recuperative powers of private enterprise are weakened at the same time that they must fight against greater odds. Under these menacing conditions it may well be that a vicious spiral of deflation can be stopped from developing into a collapse, neither by the time honoured device of cost reduction, nor yet by the newer policy of combating deflation by appropriate bank action. These methods are either not powerful enough or they operate too slowly. At the same time the public, far more impatient than formerly, demands quick results. The banker-producer credit mechanism appears no longer adequate to provide a reasonably steady flow of spendable funds. There is, accordingly, a growing insistence that purchasing power must be transmitted to the community through some other channel.

It has been urged, therefore, that the purchasing power of the community should be maintained by tapping another faucet—one which connects bank credit directly with consumers without the intermediary of the producer.* Instead of making consumer purchasing power wholly dependent upon the action of entrepreneurs, it is proposed to invert the relationship—at least in times of emergency—and control producer optimism through the maintenance, by direct methods, of the volume of spendable funds.

In consequence of this striving for stability of purchasing power, however, forces have been set in motion which tend, unfortunately, to intensify the instability of the price structure for capital goods. It is sought, for example, to achieve stabilization of consumer income by building up reserves in good times to be drawn upon and distributed in periods of depression.

The first important development in this direction was the accumulation of corporate reserves intended to insure stability of dividend payments to stockholders. This development is of comparatively recent date, but by now has assumed huge proportions, and has profoundly influenced the capital market in the direction of greater instability.

Profits are not distributed in large part in periods of prosperity, but are pumped into the capital market, thereby stimulating an abnormal development of capital formation. And in periods of depression the invested reserves are dumped on the capital market in order to supply the cash needed for dividend payments. Thus the effort to stabilize the incomes of dividend receivers has the effect of tending to lower the capital market rate in times of prosperity and raising the capital market rate in times of depression. This has the effect of stimulating investment unduly during the boom and retarding the return of investment during the depression phase. In other words, the effort to stabilize the incomes of stockholders affects the market rate of interest in a manner precisely opposite to that which Wicksell has so clearly shown is needed to secure stabilization of income and of the price level. The policy of modern corporations, therefore, works directly counter to what has by now come to be generally regarded as sound banking policy.

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* For a discussion and critique of Hayek's views on this problem, see the article by Alvin H. Hansen and Herbert Tout entitled *Investment and Saving in Business Cycle Theory*, *Econometrica*, April 1933.

We are now entering a period when other reserves similar in character to dividend reserves are being widely agitated and already in large part adopted. I refer to the accumulation of unemployment reserves in good times to be paid out in benefits to the unemployed in periods of depression, and to public finance budgetary arrangements which are intended to make possible the postponement of large public works programmes to periods of depression. It makes no difference, from the standpoint of the argument in hand, whether such budgeting of public works is made possible by the accumulation of prosperity reserves to be expended in constructional programmes in periods of unemployment, or whether the public works are financed in the depression period by an issue of public bonds to be redeemed in the succeeding period of prosperity. In either event the effect upon the capital market is the same; the rate of interest is artificially reduced in times of prosperity and artificially raised in times of depression. The effect is to stimulate private investment unduly in the boom period and to retard it in the depression. It is of course always possible that central bank action may counteract this tendency.

These gigantic reserves could, however, become in effect rivals of the central banks if, through them, a deliberate effort were made to control the rate of interest and the money and capital markets. This becomes all the clearer if we follow out the implications of a specific suggestion, made by certain proponents of these stabilization schemes, for the transfer of purchasing power from prosperity to depression. It has been suggested that those who manage these reserves—whether dividend reserves, unemployment reserves, or public works reserves—should build up, in the prosperity phase, a considerable proportion of the accumulations in the form of cash, thereby withdrawing funds from the banking system and putting a damper on the boom. These cash reserves would later, when depression came, be put directly into active circulation. Cash thus paid out would rapidly accumulate in the reserves of the banks and furnish a powerful stimulus for bank credit expansion. It can easily be seen that the reserves in question are of such gigantic proportions that central bank policy would be largely at the mercy of those in control of these stabilization reserves. And to make matters worse it would be difficult to secure any sort of centralization of corporate dividend reserves, state unemployment reserves (in a federal government such as the United States of America), or the public works reserves of hundreds of different governmental units. This situation presents a challenge to central bank control and endangers the effectiveness of central bank policy along the lines envisaged by Wicksell.

Moreover, any effort to get spendable funds to the community through a programme of public works, and the like, on a sufficient scale to cope adequately with a major depression, would necessarily make serious inroads on the system of private enterprise. The Government of the United States has felt it necessary, during the current depression, to make a "blood transfusion," so to speak (vide the Reconstruction Finance Corporation and related institutions), in an effort to revive an organism which appeared to lack self-recuperative powers. Under the guise of resuscitating private enterprise, the economic order is in process of being transmuted into state socialism.

Another suggestion of theoretical interest, though probably of no practical significance, is to subsidize employment. The Government would pay a certain proportion of each pay-roll, the funds being obtained through an expansion of central bank credit. Such a subsidy would permit a general nation-wide reduction in the cost of labour to the employer without causing any reduction in the wages received by the employee. Since it is probable that the elasticity of the demand for labour is greater than unity,* it is likely that a subsidy equal to 5 % of the pay-roll (amounting to a 5 % nation-wide reduction in labour cost) would have an enormous influence on employment. Particularly would this be the case under a double-acting system such as that here proposed—one which would at once reduce labour costs and yet maintain labour earnings.† In contrast, in the current depression, every reduction in wage rates has been accompanied by a contraction of purchasing power. The reduction in labour cost has thus been nominal rather than real. While wage rates, in the United States, have fallen by some 20 %, the total purchasing power has fallen by over 60 % and wholesale prices by nearly 40 %.

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* See the writer's *Economic Stabilization in an Unbalanced World*, pp. 181–82. Harcourt, Brace & Co., 1932.

† A subsidy of 5 % of the total pay-roll of all private employees in the year 1930 would have cost the federal government 1·7 billion dollars.

In the post-war period governments have at times subsidized private enterprise in an effort to stimulate employment. In the United States it has been proposed that the federal government should guarantee the out-of-pocket losses of industries which resumed production for stock in the hope that increased employment would increase the demand for the stocks produced. Colonel M. C. Rorty* has suggested a government subsidy to stimulate private construction whenever constructional activities had fallen 10 to 25 % below the normal level. Such subsidies, he argues, should be awarded to those private bidders who would accept, as bonuses, the lowest percentages of certified outlays for wages and materials. The lowest bidder might, for example, offer to undertake a piece of construction if the government would grant a subsidy of 20 % of the total payments for wages and materials.

These proposals are, however, in danger of stimulating production or construction unduly in special industries in a manner out of line with the ultimate requirements of the market, since subsidies of this character would stimulate production in advance of known demand. Very serious maladjustments are likely to follow therefrom. The payroll subsidy is less subject to this criticism, since production would be stimulated in such directions as the price system would indicate to be the most profitable. Moreover, it offers less danger of abnormal shifts in demand, since the subsidy would be distributed to industry as a whole in direct porportion to pay-rolls. Special subsidies applicable to a limited section of industry, or even a large programme of public works, are likely to cause such violent shifts in demand as to create new maladjustments.

The aim of all monetary programmes of stabilization—no matter how diverse in detail—is to prevent violent fluctuations in the *effective* money supply (MV).† Hayek would keep the effective means of payment constant (more accurately speaking, *neutral*, but for our purposes the difference is not material). Haberler would keep the *per capita* income constant, while Snyder and Edie would provide for a continued expansion, in the circulating media, of 3 or 4 % per annum, or such rate as would be appropriate to the secular increase in productivity. Even Hayek's proposal, which contemplates a falling price level in a progressive society, calls for the *maintenance* of total purchasing power, while Haberler demands that the *average* rate of earnings of the factors of production shall be maintained. Applying the general principle to the most important factor of production, namely, labour (wages and salaries absorb 55 % of the total income in the United States), Hayek's proposal, broadly speaking, requires the maintenance of the total payroll, while Haberler's requires the maintenance of average earnings.

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* *Harvard Business Review*, April 1932.

† Money, of course, as here used includes deposit currency.

It may of course be admitted at once that all programmes of stabilization should concentrate on the prevention of the boom, hoping thereby to forestall maladjustments and thus stave off, as far as may be, the depression. But with the best of intentions and institutional control we can be certain that maladjustments, in a progressive society, will nevertheless develop in greater or lesser degree. No student of Professor Cassel's works is likely to forget the intimate connection between instability and progress.

How to prevent past maladjustments, however caused, from running riot and developing into a cumulative spiral of deflation—this is the problem to which I wish to direct attention. We must recognize that while every effort needs to be directed against *prevention*, we must also learn, if possible, to *check the spread* of the disease, once the patient is affected. Instead of permitting the disturbances in special branches of industry to spread to the whole economy like a deadly poison, they should, as far as possible, be localized. A new balance could be built up through the maintenance of the totality of monetary purchasing power without passing through a general deflation. The adjustments that would have to be made before a new equilibrium could be reached would be facilitated through the stimulus given in this manner to the rapid development of those industries the expansion of which is called for by the new conditions. It is a common fallacy of many economists to suppose that deflation is the necessary medium through which the new balance is reached. What is needed is a *transfer of factors*, and this can most speedily be effected by safeguarding the general purchasing power.

Business enterprises cannot be responsible for the maintenance of purchasing power. Self-preservation and continuance of private enterprise demands that they must look to the profit margin. It is gradually coming to be recognized, however, that it is a responsibility of the central banks to prevent, as far as possible, a general collapse of purchasing power.* Yet it is doubtful, as we have seen, if they can perform this function alone, without the aid of the government. It may be that we have reached a stage in the development of modern industry in which free enterprise and the price system cannot continue to function unless the government, in co-operation with the central bank, safeguards the maintenance of *purchasing power as a whole.* Without this, in a state of general collapse of producer confidence, each entrepreneur in self-defence contracts his operations—a policy which, if pursued by all, is suicidal to the general economy. This is the lesson of the vicious spiral of deflation which we have witnessed in the last three years.

It is becoming a serious question whether governments can escape the dilemma either of undertaking the maintenance of total purchasing power (leaving private initiative to carry on the great bulk of economic activities) or else of taking over the operation of all enterprise itself.

What is needed is the guarantee that industry *as a whole* shall not suffer losses by reason of what Keynes calls "induced changes," or, as I should say, those changes arising from the failure of the Currency Authority to maintain purchasing power. This does not mean to guarantee each individual business against loss. If this were done, it would spell the end of the system of private enterprise, the very essence of which is that each business must undertake the risks involved, win profits if possible, but assume the losses if any are incurred. If the government guaranteed each business against loss it would of necessity have to assume control of management. If, however, the total purchasing power of the community could be maintained, though individual businesses would suffer losses, profits would not disappear *en masse* in the whole system.

Unfortunately, any proposal directed to this end is fraught with economic difficulties, and, frequently, political dangers, particularly in modern democracies which have so often demonstrated a lack of capacity in self-control. But whether we turn to a planned economy (capitalistic, socialistic, or communistic) or to a regulated price system, a high order of political wisdom and efficiency is absolutely essential to success.

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* Cf. Gustav Cassel, *The Crisis in the World's Monetary System*, Clarendon Press, Oxford, 1932.

DIE INNERE GESCHLOSSENHEIT DES WIRTSCHAFTSPOLITISCHEN SYSTEMS

SVEN HELANDER, *Hindenburg-Hochschule, Nürnberg*

UNSERE Fragestellung nach der inneren Geschlossenheit des wirtschaftspolitischen Systems ist eine zentrale Frage jeder Theorie der Wirtschaftspolitik, deren innere Konsequenz wir prüfen wollen. Die praktische Wirtschaftspolitik ist alles andere als konsequent—in dem Streit der Interessenten werden Kompromisse geschlossen, die von neuen Kompromissen gefolgt werden. Wir prüfen eine nach wirtschaftlichrationalen Gesichtspunkten aufgebaute Wirtschaftspolitik, deren Gestaltung wir an anderer Stelle näher geschildert haben.*

Was bedeutet nun die Frage nach der inneren Geschlossenheit des wirtschaftspolitischen Systems? Zwei verschiedene Möglichkeiten liegen vor, diese Frage zu deuten, auf deren kritische Prüfung wir später näher eingehen.

(1) Man kann als die grundlegendste Frage von dem wirtschaftspolitischen Ziel ausgehen, und unter diesem Aspekt die innere Konsequenz des Systems prüfen. Sehr oft wird man finden, dass in dem wirtschaftspolitischen System mehrere Ziele um die Vorherrschaft kämpfen, deren Vereinbarkeit dann kritisch geprüft werden muss.

Wir prüfen in diesem Falle gewissermassen synthetisch—die Einheit, von oben her betrachtet.

(2) Wir können auch den inneren Aufbau in seinem gegenseitigen Verhältnis prüfen, die angewandten Mittel mit den erzielten Wirkungen vergleichen, untersuchen, inwiefern ein Mittel, auf einem Sondergebiet angewandt, logischerweise auf andere Sondergebiete übertragen werden muss, wobei wir sehr leicht zu den Sonderproblemen einzelner, konkreter Volkswirtschaften gelangen werden, um solche Probleme überhaupt prüfen zu können. Wir können diese Art von Untersuchung dann auch als die analytische, gegenüber der vorhin genannten synthetischen, bezeichnen.

I. DIE INNERE GESCHLOSSENHEIT DES WIRTSCHAFTSPOLITISCHEN SYSTEMS NACH DEM WIRTSCHAFTSPOLITISCHEN ZIELE BEURTEILT

Wir haben hier die logisch einheitlichere Aufgabe vor uns. Jedes Lehrbuch der wirtschaftspolitischen Lehrmeinungen unterrichtet uns über verschiedene wirtschaftspolitische Ziele und es handelt sich nur um die konsequente Durchführung dieses Zieles bis in die wirtschaftspolitischen Details. Wir haben ferner ein besonders dankbares Objekt praktischer Kritik—die volkswirtschaftliche Verbrämung privater Interessentenpolitik, die praktischen Kompromisse zwischen verschiedenen Interessen, die Fortführung alter wirtschaftspolitischer Kompromisse und deren Verschmelzung mit neuer Interessentenpolitik fordern zur Kritik heraus. Diese Kritik kann praktisch äusserst wichtig sein, und nur allzuleicht versuchen mächtige Privatinteressen jene Kritik der Wissenschaft totzuschweigen oder sich über sie hinwegzusetzen. Freilich ist die Kritik infolge wirtschaftspolitischer Beschränktheit oft über die sachlich erlaubte Grenze hinausgegangen, wenn sie alle Wirtschaftspolitik als lauter Interessentenpolitik kennzeichnete. Ja sogar den extremen Fall angenommen, das würde für eine bestimmte Volkswirtschaft praktisch zutreffen, so bedeutet das keinen Beweis dafür, dass immer und überall positive Wirtschaftspolitik wirklich nur Interessentenpolitik sein müsste. Das ändert jedoch nichts an unserer Feststellung, dass der durch Privatinteressen ungebundene Gelehrte vor allem berufen ist, hier Kritik zu üben: er kann den grossen Staatsmann, der die Wirtschaftspolitik eines ganzen Landes zu beeinflussen versteht, kritisieren, denn dessen Gedankenkraft, Konsequenz und Vielseitigkeit muss in dem praktisch Erreichten ihren Niederschlag finden.

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* S. Helander, *Rationale Grundlagen der Wirtschaftspolitik*, Nürnberg, 1933.

Für die Theorie der Wirtschaftspolitik besonders interessant sind nun jene Fälle, bei denen zwei verschiedene — wie wir annehmen wollen: innerlich je für sich konsequente — wirtschaftspolitische Systeme um die praktische Vorherrschaft kämpfen. Jene Systeme haben verschiedene Methoden, das wirtschaftlich Wertvolle zu beurteilen. Jedes fremde wirtschaftspolitische System bedeutet nun, dass das eigentlich vorherrschende wirtschaftspolitische System nicht Gelegenheit bekommt, dasjenige Optimum zu erreichen, das sonst möglich wäre. Wenn wir nach dem leitenden Wertprinzip des betreffenden wirtschaftspolitischen Systems fragen, so kann das etwas zugespitzt so ausgedrückt werden, dass die Recheneinheit, die zur Beurteilung des wirtschaftspolitisch Erreichten angewandt wird, verschieden ist. Damit ist selbstverständlich, dass in *einer* Recheneinheit gerechnet, das Optimum unerreichbar wird. Die Kritik der inneren Geschlossenheit des wirtschaftspolitischen Systems erhält somit sowohl theoretische wie praktische Bedeutung.

Wenn also in einem Lande ein Wirtschaftssystem nicht vollständig durchgeführt ist, ist es selbstverständlich, dass eine einheitlich geführte Wirtschaftspolitik wichtige Aufgaben vorfinden muss, und, von ihrem Wertsystem betrachtet, zu einer Steigerung des wirtschaftlichen Resultates beitragen kann. Ist z. B. das kapitalistische Wirtschaftssystem nur unvollständig durchgeführt, so fehlt die grundlegende Voraussetzung des Wirtschaftsliberalismus, dass die Menschen kapitalistisch handeln, und seine, was die aktive Wirtschaftspolitik des Staates angeht, negativen Schlussfolgerungen müssen, der logischen Konstruktion entsprechend, hinfällig werden. Eine solche kapitalistische Wirtschaftspolitik kann dann das Wirtschaftsleben "erziehen." Vieles, was eine solche Erziehungspolitik zu erreichen im Stande ist, könnte vielleicht auch durch die Initiative des Einzelnen erreicht werden — aber wenn diese Initiative nicht stark genug oder nicht andauernd genug ist oder gar fehlt, muss die Wirtschaftspolitik jene Aufgaben übernehmen.

Als logischen Parallelfall, trotz des ganz verschiedenen wirtschaftlichen Inhalts, kann z. B. auf die sogenannte Wirtschaftsdemokratie verwiesen werden als einer Art von Erziehungspolitik für den sozialistischen Staat. Wenn das Organisationsprinzip eines solchen Staates die Alleinherrschaft der Arbeit ist, so wird durch die sogenannte Wirtschaftsdemokratie die Leitung des Wirtschaftslebens durch die Arbeiter auf diesem Wege angebahnt und zwar mit Hilfe der staatlichen Wirtschaftspolitik, da dies nicht von selbst in einem kapitalistischen Staat entsteht.* Vom Standpunkt der Arbeitswertrechnung der sozialistischen Wirtschaftspolitik, deren Berechtigung wir damit keineswegs an sich akzeptieren, sondern nur interpretierend voraussetzen, steigt damit der Wert des gesamten Sozialproduktes, sodass die Wirtschaftspolitik unter der genannten Voraussetzung als erfolgreich gekennzeichnet werden kann. Gleichzeitig ist, nach der kapitalistischen Marktrechnung, weniger produziert worden, der Misserfolg der Wirtschaftspolitik ist offensichtlich. Zwei einander entgegengesetzte wirtschaftliche Zielrichtungen führen zu verschiedenartiger Beurteilung eines und desselben wirtschaftlichen Vorganges. Eine Wirtschaftspolitik, in der solche verschiedenartigen wirtschaftspolitischen Systeme ihren praktischen Niederschlag finden, möge von verschiedenen wirtschaftlichen Gesichtspunkten verschieden gewertet werden; dass hier keine systematische Einheitlichkeit vorliegt, ist offensichtlich, die geführte Wirtschaftspolitik ist widerspruchsvoll.

Nun entstehen aber auch solche Fälle, bei denen der Kritiker einfach vor der Uneinheitlichkeit der Wirtschaftspolitik resignieren muss. In den Kulturvorstellungen der Menschen bestehen Widersprüche, über die sie praktisch nicht hinwegkommen, die in ihrer ganzen Widerspruchsfülle als Tatsachen einfach akzeptiert werden müssen.* Obwohl wir z. B. die menschliche Arbeitskraft nur als einen unter vielen Produktionsfaktoren des Marktes betrachten, die unter sich substituierbar sind und also bei einer gewissen Preishöhe keine Verwendung finden, so weigern wir uns, diese menschliche Arbeitskraft nur aussterben zu lassen. Sogar bei einer Preisgestaltung des Marktes, die das Verhungern gewisser Menschen als wirtschaftlich rational ergeben würde, heben wir den Menschen als Träger höherer Werte heraus und ziehen auch die Konsequenzen hieraus für die Unterhaltung solcher Menschen auch dann, wenn wirtschaftliche Gründe hierfür nicht mehr angeführt werden können, ja, es können in gewissen Fällen sogar wirtschaftliche Gründe dagegen angeführt werden.† Wir wissen, dass auf solche Überlegungen hin grosse Teile der Sozialpolitik einen Ausbau erfahren haben, wie er durch rein wirtschaftliche Überlegungen absolut nicht denkbar gewesen wäre. Wir sprechen dabei nicht von den als Übertreibungen erkannten Teilen der Sozialpolitik, sondern von den Teilen, die gewissermassen ausserhalb der Debatte stehen, als selbstverständliche Teile des Schutzes "alles dessen, was Menschenantlitz trägt" betrachtet werden, etwa Schutz vor dem Hungertode für Erwerbslose auch in einem solchem Umfange, wie er auch mit Rücksicht auf spätere Verwendungsmöglichkeit wirtschaftlich nicht mehr begründet werden kann. Hier entsteht ein offenbarer Widerspruch in der Zielsetzung: einmal das wirtschaftliche Ziel, das mit Rücksicht auf billige Kosten und grossen Nutzen günstigste Wirtschaftsresultat erzielen will, was im Grenzfall auch ein Verhungern der dauernd wirtschaftlich nicht verwendungsfähigen Arbeitskraft gestatten würde, sodann aber die Unterhaltung von Arbeitern unabhängig davon, ob diese jetzt oder in absehbarer Zukunft überhaupt beschäftigt werden können. Dieses Problem darf nicht als eine Spezialfrage nur der Sozialpolitik angesehen werden. Wenn in dem ausbalanzierten System der inneren Verbundenheit der Theorie des ganzen Wirtschaftslebens der Fremdkörper einer einzigen nicht-wirtschaftlich bestimmten Ausnahme vorkommt, so beeinflusst der nicht funktional beeinflusste Faktor das ganze, im übrigen gegenseitig gebundene Funktionalsystem. Eine handelspolitische Massnahme, die rein-wirtschaftlich unrational ist, kann z. B. diskutabel werden im Vergleich mit der nicht wirtschaftlich bestimmten Sozialpolitik. Ja, dieser noli-me-tangere-Standpunkt der Wirtschaftspolitik muss — rücksichtslose Konsequenz vorausgesetzt — schliesslich zu einer Umgestaltung der gesamten Wirtschaftspolitik führen, wobei das geringere, nunmehr erreichbare Wirtschaftsresultat nach wirtschaftlichen Proportionalitätsgesetzen sämtliche Teile der Volkswirtschaft in ihrer Ergiebigkeit vorbelastet.

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* B. Rauecker, *Wirtschaftsdemokratie*, Berlin, 1929, p. 54 f.

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* J. N. Keynes, *The Scope and Method of Political Economy*, 4th ed., London, 1917, p. 61.

† A. C. Pigou, *The Economics of Welfare*, 3rd ed., London, 1929, p. 727.

Wir können zu derselben Erkenntnis in einem verwandten Fall gelangen. Mann kann, weil sonst z. B. eine Revolution drohte, die viel grössere Werte verlorengehen lassen würde, eine wirtschaftspolitische Massnahme durchführen, die sich rein wirtschaftlich nur verteidigen liesse als das kleinere Übel.* Es werden z. B. mit solcher Begründung sozialpolitische Massnahmen vorgenommen, die die indirekten Lohnkosten wesentlich erhöhen, und zwar über das für diese Volkswirtschaft rational begründete Mass hinaus. Die bekannten Folgen treten ein: Mehrverwendung von Kapital und Zinserhöhung; Wenigerverwendung von Arbeitskraft und Arbeitslosigkeit etc. Manchmal versucht man dann in der Wirtschaftspolitik so zu tun, als ob die störende Ursache nicht da wäre, und verlangt im übrigen die "natürliche Marktlage." Man wird dabei immer wieder neue Enttäuschungen erleben. Es muss vielmehr die Quasi-Revolutionssteuer nach allgemeiner Überwälzungslehre auf die Gesamtheit der Volkswirtschaft übertragen werden. Diesen Überwälzungsprozess kann die Wirtschaftspolitik beeinflussen, nach gewissen Richtungen hin erleichtern, nach anderen erschweren, aber weiter erstreckt sich ihre Beeinflussungskraft nicht. Sie kann also nicht eine vielleicht widerwillig durchgeführte Massnahme wegleugnen, so tun, als ob der freie Markt weiter existierte.

Nun gibt es aber in jeder staatlichen Wirtschaftspolitik einen grundsätzlichen Widerspruch zwischen der Vorrangstellung des Staates und der der Wirtschaft. Innerhalb gewisser Grenzen braucht ein solcher Widerspruch nicht zu entstehen, aber es können die Lebensnotwendigkeiten des Staates so entscheidend werden, dass die wirtschaftlichen Zielsetzungen demgegenüber zurücktreten müssen. Jede solche Berücksichtigung hebt die Geschlossenheit des wirtschaftspolitischen Systems auf.† Je stärker solche Rücksichten praktisch hervortreten, desto unmöglicher wird es, die Geschlossenheit des wirtschaftspolitischen Systems zu verwirklichen. Ja, die Geschlossenheit reduziert sich praktisch auf eine Konformität mit den Aufgaben, die sich aus der jeweiligen wirtschaftlichen und politischen Situation ergeben. Das sind Modifikationen, die uns praktisch bekannt sind, z. B. in der Form der Vorbereitung des Wirtschaftslebens für den Kriegsfall, besonderer Staatsaufgaben zum Schutze politisch gefährdeter Grenzgebiete, des wirtschaftlichen Aneinanderschmiedens der verschiedenen Teile des Staatsgebietes etc. Je politisch gefährdeter ein Staat ist, desto mehr treten dann jene wirtschaftlichen Formen der Staatspolitik hervor, und diese Zielsetzung muss dann die rein wirtschaftliche Zielsetzung zurückdämmen: Der Widerspruch in der Zielsetzung der Wirtschaftspolitik wird offensichtlich. Dass es sich um praktisch garnicht zu vermeidende Widersprüche handeln kann, ändert an der grundsätzlichen Feststellung und an den praktischen Auswirkungen nicht das Geringste.

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* H. Sidgwick, *The Principles of Political Economy*, London, 1883, p. 425.

† Nur eines der berühmtesten Beispiele ist die Charakterisierung der Navigationsakte durch Adam Smith als, "perhaps the wisest of all the commercial regulations in England." A. Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, Basel, 1801, ii, p. 287. Vgl. J. Bonar, *Philosophy and Political Economy*, 3rd ed., London, 1922, p. 177.

II. DIE INNERE GESCHLOSSENHEIT DES WIRTSCHAFTSPOLITISCHEN SYSTEMS NACH DEM INNEREN AUFBAU DES SYSTEMS BEURTEILT

Eine Diskussion über irgendwelche Mittel allein für sich ohne jede Bezugnahme auf das mit diesen Mitteln erstrebte Ziel, ist logisch nicht möglich. Dies heisst nicht, dass eine solche Diskussion nicht recht oft vorkommen könnte, ja, vielleicht besonders in der Wirtschaftspolitik gar nicht selten ist. Man diskutiert darüber, ob eine Subvention gegeben werden soll, eine Frachtermässigung bewilligt werden soll, ein Zoll eingeführt werden soll, etc.. Dabei ist das Mittel an sich vollkommen gleichgültig; nur das zu Erreichende kann grundsätzlich diskutiert werden. Unsere Frage nach der Geschlossenheit im inneren Aufbau des wirtschaftspolitischen Systems greift deshalb notwendig über die Detailfragen hinaus.

Mit welcher Inkonsequenz gewisse wirtschaftspolitische Mittel auf einem Spezialgebiet akzeptiert werden, auf anderen nicht, kann immer wieder beobachtet werden. Teilweise kann es die Arbeitsteilung unter den verschiedenen Spezialgebieten der ausgedehnten nationalökonomischen Wissenschaft sein, die zu solchen praktischen Inkonsequenzen geführt hat: man folgt dem Rat des einen Spezialisten, was an sich auch Folgen für andere Teile des Wirtschaftslebens haben müsste, wo man aber den Ratschlägen anderer Spezialisten folgt, wobei das Gesamtresultat höchst widerspruchsvoll werden kann.

Daneben können es aber Widersprüche zwischen den angewandten Mitteln sein, die vollkommen beabsichtigt sind. Mit Recht wendet sich hiergegen Gustav Cassel:*

"Wenn der Staat eine Verantwortlichkeit für die Wohlfahrt seiner schwächsten Bürger auf sich nimmt und den Schutz derselben gegen soziale Schädlichkeiten auf sein Programm setzt, so ist es nur natürlich, dass diese Erweiterung der Aufgabe des Staates auch auf die Gestaltung seiner Handelspolitik einen Einfluss haben kann. . . . Einen scharfen Unterschied zwischen handelspolitischen und sozialpolitischen Massnahmen, wie man ihn in der Politik gern aufrechtzuerhalten sucht, gibt es in Wirklichkeit nicht."

Diese Auffassung wird allerdings in der Literatur bestritten, so von einem der scharfsinnigsten jüngeren Freihandelstheoretiker in Deutschland Röpke,† der die Sozialpolitik als eine Ausnahme von der übrigen Wirtschaftspolitik betrachten möchte und die Verwendung ähnlicher staatlicher Eingriffe in der Handelspolitik ablehnt. Die Sozialpolitik will nämlich nur den Schutz derjenigen Klasse, die, weil sie von der dauernden Verwertung ihrer blossen Arbeitskraft lebt, als die schwächste und schutzbedürftigste anerkannt wird. Die Schutzzollpolitik sei dagegen in aller Regel eine Priviligierung einiger Gruppen von Produzenten, von denen oft gerade die stärksten durch ihren wirtschaftlichen und politischen Einfluss ein Höchstmass staatlicher Fürsorge durchzusetzen vermögen.

Uns überzeugt diese Kritik Röpkes nicht, da er sich eine Handelspolitik als Gegenstand der Kritik aussucht, die nur Interessentenpolitik ist, während sich eine grundsätzliche Kritik gegen diejenige Handelspolitik richten müsste, die aus volkswirtschaftlichen Erwägungen heraus durchgeführt wurde.‡ Hierbei gehen die Beziehungen zwischen Handelspolitik und Sozialpolitik so dicht hin und her, dass es nicht möglich ist, eine derartige Isolierung, wie sie Röpke wünscht, vorzunehmen. Handelspolitik, die z. B. arbeitsintensive Industrien fördert, hebt den Lebensstandard der breiten Massen genau so wie viele andere sozialpolitische Massnahmen. Umgekehrt kann eine Sozialpolitik, über eine gewisse Grenze getrieben, die staatliche Exportförderung illusorisch machen. Wenn ferner Röpke sich darauf beruft, dass gewisse sozialpolitische Massnahmen gar keine Einkommensverschiebung oder Beeinflussung der Gesamtproduktivität herbeiführen, etwa früherer Ladenschluss, wodurch die Einkäufe nur mehr konzentriert werden, während die Handelspolitik immer weitergreifendere Folgen hat, so glauben wir nicht, dass es Schwierigkeiten bereitet, in der Handelspolitik ebenso "unschuldige" Fälle nachzuweisen, etwa Schutzzölle, die auf das Ausland zuerst abgewälzt werden, dort aber durch verbesserte Technik wieder eingeholt werden o.ä.

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* G. Cassel, *Theoretische Sozialökonomie*, 5. Aufl., Leipzig, 1932, p. 603.

† W. Röpke, *Liberale Handelspolitik*, in G. Briefs, *Die Wandlungen der Wirtschaft im kapitalistischen Zeitalter*, Berlin–Grünewald, 1931, pp. 211 ff. Vgl. auch H. Dietzel, *Socialpolitik und Handelspolitik*, Berlin, 1902, pp. 4, 14, 21, 37, 41.

‡ Von der Arbeitergesetzgebung früherer Jahrhunderte sagt Jevons, "it is the effort of some dominant body to keep down a lower class." W. S. Jevons, *The State in Relation to Labour*, London, 1882, p. 34. Für eine systematische Beurteilung der Sozialpolitik gehen wir aber von solchen historischen Beispielen nicht aus. Solche Konstruktionen auf dem Gebiete der Sozialpolitik nähern sich marxistischen Verdrehungen, wobei der Staat charakterisiert wird als "öffentliche Gewalt zur Unterdrückung der Arbeiterklasse." Vgl. K. Marx, *Der Bürgerkrieg in Frankreich*, Berlin–Wilmersdorf, 1919, p. 47.

Nach dem Urteil Röpkes soll Verhinderung der Einwanderung als Mittel, den Bevölkerungszuwachs zu regeln, wobei zugleich die Möglichkeit der qualitativen Auslese der Einwanderer gegeben wäre, ohne Konsequenz auf die Handelspolitik sein. Nun ist es durchaus antiliberal, die Bevölkerungsbewegung beeinflussen zu wollen, sondern nach liberaler Ideologie müsste die Marktlage für die Bevölkerungsbewegung entscheidend und jeder staatliche Eingriff, sowohl was Quantität wie Qualität der Bevölkerung angeht, verboten sein. Ob man mehr fremde Arbeiter auf den einheimischen Markt hereinlässt (Bevölkerungspolitik) oder mehr Produkte fremder Arbeiter hereinlässt (Handelspolitik), kann den einheimischen Markt in ähnlicher Weise beeinflussen — die indirekten handelspolitischen Folgen sind so offensichtlich, dass wir die Konsequenz zwischen beiden Gebieten der Wirtschaftspolitik auch in diesem Falle verlangen.

Es ist die Abneigung der liberalen Wirtschaftspolitik gegen das Mittel des staatlichen Eingriffes in das Wirtschaftsleben überhaupt, die dazu geführt hat, gewisse Eingriffe, deren Notwendigkeit nicht mehr bestritten werden konnte, als Ausnahmen behandeln zu wollen. Solche Ausnahmen sind jedoch nicht vereinbar mit dem Prinzip des Allzusammenhanges des ganzen Wirtschaftslebens.* Dieser Zusammenhang besteht auch in dem wirtschaftspolitisch regulierten Markt. Ja, wir tragen keine Bedenken, den Begriff der Substitution in einem anderen als dem bisherigen Sinne auch auf die Theorie der Wirtschaftspolitik zu übertragen. Wenn eine überproportionale Entwicklung der Einkommen eines Gewerbezweiges durch die Wirtschaftspolitik versucht wird, kommt eine Reaktion in der Einkommensentwicklung eines anderen Gewerbezweiges in entsprechender Weise, wie eine Überhöhung des Preises eines Produktionsfaktors nach dem Substitutionsprinzip zur Wenigerverwendung dieses und zur Mehrverwendung der anderen Produktionsfaktoren führt.

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* Der Widerspruch in dem System J. St. Mills ist bekannt, wonach die Gesetze der Produktion "partake of the character of physical truths. There is nothing optional or arbitrary in them"; während für die Gesetze der Distribution festgestellt wird: "That is a matter of human institution solely. The things once there, mankind, individually or collectively, can do with them as they like."—J. St. Mill, *Principles of Political Economy*, 3rd ed., London, 1852, I, pp. 243 f. Der prinzipielle Zusammenhang zwischen Preisen und Einkommensarten wird hier überhaupt geleugnet.

Nehmen wir als Beispiel eine überproportionale wirtschaftspolitische Förderung der Landwirtschaft mit relativer Steigerung des Gesamtniveaus der Agrareinkommen, so werden folgende Reaktionen ausgelöst:

In der Industrie : Technisch oder wirtschaftlich gleichwertige industrielle Produkte werden die Agrarprodukte ersetzen. Landwirtschaftliche branchenmässige oder regionale Teilmonopole werden gebrochen und statt dessen industrielle Güter von dem Markte der freien Konkurrenz treten. Landwirtschaftliche Rohstoffe werden besser ausgenutzt und infolgedessen weniger gebraucht werden. Eine Erhöhung der Preise der industriellen Hilfsmittel der Landwirtschaft wird eintreten und damit eine teilweise Überwälzung der landwirtschaftlichen Sondergewinne auf die Industrie. Soweit die Nachfrage nach den Agrarprodukten elastisch ist, wird ihr Absatz vermindert werden und statt dessen die Kaufkraft auf Industrieprodukte umgestellt werden.

Im Handel : Die Zufuhr aus räumlich entfernt liegenden oder schwer erreichbaren Gegenden wird erhöht und somit erhöhte Möglichkeit für Handelstätigkeit sich ergeben. Auch die Heranziehung von zeitlich entfernten Vorräten wird lohnender, d.h. die Spekulation steigt und es entstehen Spekulationsgewinne auf Kosten der Agrargewinne. Je höher das Agrarpreisniveau ist, desto lohnender ist es, in agrare Monopolverhältnisse einzutreten und durch Zufuhr fremder Waren oder Ausbau der Absatzorganisation erhöhte Handelstätigkeit zu ermöglichen. Das vermehrte Angebot von Agrarprodukten seitens der Landwirtschaft und ebenso ihre erhöhte Nachfrage nach anderen Produkten lassen beide vermehrte Händlergewinne entstehen.

So können derartige Substitutionsvorgänge landwirtschaftliche Einkommen in industrielle oder Handelseinkommen verwandeln, wenn die Wirtschaftspolitik eine einseitige Erhöhung der Agrareinkommen herbeizuführen versucht. Die moderne Verkehrsentwicklung, die wissenschaftliche und technische Vervollkommnung haben hierbei grössere Bewegungsfreiheit geschaffen.*

Wenn von einer Erweiterung des Begriffes der Substitution vorhin gesprochen wurde, so liegt diese Erweiterung mehr in dem Gesichtspunkt, als in dem materiellen Inhalt. Jede Art von Agrareinkommen, Industrieeinkommen etc. muss zusammengesetzt sein aus Grundrenten, Arbeitslöhnen, Kapitalzinsen und Unternehmereinkommen.

Unsere Behauptung eines Substitutionsverhältnisses u.a. zwischen allen Agrareinkommen und allen Industrieeinkommen bedeutet nur eine Umgruppierung der schon bekannten Thesen.† Jede Steigerung z. B. des gesamten landwirtschaftlichen Einkommens infolge wirtschaftspolitischer Eingriffe besteht aus lauter Einzelposten, nämlich von erhöhten Arbeitslöhnen, Grundrenten, Kapitalzinsen oder Unternehmergewinnen innerhalb der Landwirtschaft. Jede solche Einzelsteigerung muss eine Reaktion auslösen, teils innerhalb der anderen landwirtschaftlichen Einkommen, was in der Gesamtaddition der landwirtschaftlichen Einkommen im wesentlichen verschwindet, teils auch in den nicht-landwirtschaftlichen Einkommen, z.B. auch in den Industrieeinkommen. Das bedeutet, dass die erste Folge des erwähnten wirtschaftspolitischen Eingriffes wohl war, dass die Einzelposten der Industrieeinkommen, also die Arbeiterlöhne, Grundrenten, Kapitalzinse und Unternehmergewinne in der Industrie zunächst sinken, dass danach aber wieder eine Reaktion eintreten muss. Die Gesamtheit dieser Reaktionen führt zu dem oben festgestellten gewissen Gleichgewicht zwischen den gesamten landwirtschaftlichen und den gesamten industriellen Einkommen. Wie diese Reaktionen sich im einzelnen praktisch gestalten, haben wir vorhin an einigen Beispielen kennengelernt. D.h. mit anderen Worten: eine innere Bindung der gesamten Wirtschaftspolitik besteht in dem, was sie für einen ganzen Gewerbezweig überhaupt erreichen kann.

Dies ist eine rein theoretische Feststellung, für deren Verhältnis zu der Praxis der Wirtschaftspolitik die Friktionen des praktischen

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* E. G. Nourse, Artikel: *Agricultural Policy, Encyclopaedia of the Social Sciences*, i, New York, 1930, p. 566.

† Marshall hebt hervor: "Similarly the principle of substitution is constantly tending by indirect routes to apportion earnings to efficiency between trades, and even between grades, which are not directly in contact with one another, and which appear at first sight to have no way of competition with one another."—A. Marshall, *Principles of Economics*, 6th ed., London, 1910, p. 663.

Wirtschaftslebens, die dort geltenden Elastizitätsgrenzen etc. entscheidend werden. Wir stellen also wohl eine prinzipielle Bindung fest in dem, was die Wirtschaftspolitik überhaupt zur Förderung der einzelnen Gewerbezweige tun kann, dürfen aber nur erwarten, dass dies in der Wirklichkeit als allgemeine Tendenz in die Erscheinung treten wird. Die Vermehrung des Angebotes und die Verminderung der Nachfrage werden auch auf dem Spezialmarkte, z.B. der Landwirtschaft, jene Reaktionen auslösen, die auf eine einseitige Beeinflussung erfolgen müssen, die zuerst in den Preisen, aber hieraus folgend in den Einkommensarten hervortreten müssen.*

Diese grundsätzliche Erkenntnis bedeutet aber, dass die Anwendung von wirtschaftspolitischen Mitteln auf einem Spezialgebiet immer auch auf anderen Spezialgebieten des Wirtschaftslebens Wirkungen auslösen muss, die also nicht mehr so aussehen wie ein völlig freier Markt. Das gesamte Wirtschaftsleben ändert sich, wobei die wechselnden Elastizitätsverhältnisse von Angebot und Nachfrage auf verschiedenen Einzelgebieten durchaus unregelmässige Abweichungen entstehen lassen.

Wenn in einer Volkswirtschaft verschiedene Typen von Industrien vertreten sind, die, was z.B. die Verwendung von festem Kapital in ihrer gesamten Produktion angeht, variieren mögen von unendlich nahe an 100 % bis unendlich nahe an 0 %, und nun in dieser ganzen Industrie eine wirtschaftspolitische Veränderung vorgenommen wird, von rücksichtslosem Wirtschaftsliberalismus zu stärkster staatlicher Intervention, so wird dies die verschiedenartigsten Konsequenzen auslösen. Die Elastizität des Angebotes der verschiedenen Industrien ist so verschiedenartig, dass dieselbe wirtschaftspolitische Massnahme durchaus abweichende Folgen aufweisen wird.

Die Theorie des Wirtschaftsliberalismus entstand in einer Zeit mit sehr geringen festen Kapitalinvestitionen und konnte infolgedessen eine leichte Umstellbarkeit nach wechselnder Marktlage voraussetzen.† Nicht nur ist die Gesamtentwicklung nachher so gewesen, dass wir uns hiervon immer stärker entfernt haben,‡ sondern wir müssen mit einem weitem Variationsradius der praktischen Ergebnisse solcher Massnahmen rechnen. Je mehr auch die Arbeitskraft eine lange Ausbildungszeit braucht, um als vollwertige Arbeit für hochqualifizierte Spezialaufgaben verwendbar zu sein, desto mehr gilt auch für die Arbeitskraft einer ganzen Volkswirtschaft, dass die Umstellbarkeit auf andere Arbeitsaufgaben mit stärkeren Hemmungen zu rechnen hat als etwa zur Zeit der nationalökonomischen Klassiker.* Dass zu diesen objektiven Umstellungsschwierigkeiten auch andere psychologischer Natur kommen, hat Bagge† mit Recht hervorgehoben. Man würde vielleicht zunächst glauben, das gleiche, abschliessende Ergebnis des Umstellungsprozesses erreichen zu können, aber je nach dem Umfang des Verzinsungsbedürfnisses und Abschreibungsbedürfnisses des investierten Kapitales und dem besonderen Charakter der verlangten Arbeitsgeschicklichkeit, wird man zunächst mit einer verschieden langen Übergangsperiode rechnen müssen. Während dieser Periode wird ein Warenangebot auch zu verlustbringenden Preisen denkbar sein, wenn dieser Verlust bei solchen Preisen für die betreffende Industrie geringer ist als der Verzicht auf Zinsgewinn und Kapitalabschreibung, der bei völliger Stillegung der betreffenden Industrie eintreten müsste, zumal diese Industrie gleichzeitig auch mit einem unelastischen Angebot von Spezialarbeitern rechnen kann. Die praktische Abweichung von dem Resultat der mit keiner Friktion rechnenden Theorie liegt vor allem darin, dass ein Warenangebot *unter* den relativen Produktionskosten das Gleichgewichtsverhältnis auf dem Markte während einer längeren Periode stört und dies, sowohl was konkurrierende Industrien wie Abnehmer- und Lieferantenindustrien angeht. Ferner bedeutet die Aussicht auf fortgesetztes forciertes Angebot von Seiten jener Industrien mit unelastischem Angebot ein dynamisches Störungselement des Marktes mit je nach der Konjunkturlage variablen Konsequenzen. Am Schlusse jener Übergangsperiode wird deshalb diese Volkswirtschaft infolge all dieser Störungen tatsächlich anders aussehen müssen, als jene Theorie glaubte, die mit sofortiger friktionsfreier Umstellungsmöglichkeit rechnete. War nun diese Art von innerem Gleichgewicht des Marktes, wie sie bei einer sofortigen Umstellungsmöglichkeit entstehen würde, das wirklich Erstrebte, dann müssen die wirtschaftspolitischen Massnahmen, um dies unter den veränderten Bedingungen zu erreichen, anders aussehen. Wir müssen also unterscheiden, ob das *Mittel* des Noninterventionismus oder das vorgestellte *Ziel*, vorgestellt nämlich unter der Voraussetzung sofortiger Umstellbarkeit der

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* L. Walras, *Éléments d'Économie Politique Pure*, 7me éd., Lausanne und Paris, 1900, p. 194.

† T. Veblen, *The Theory of Business Enterprise*, New York, 1917, p. 23.

‡ W. Sombart, *Das Wirtschaftsleben im Zeitalter des Hochkapitalismus*, München und Leipzig, 1927, i, p. 123 f., p. 235 f.

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* G. Cassel, *Socialpolitik*, 2 Auflage, Stockholm, 1908, p. 80 f.

† G. Bagge, *Arbetslönens reglering genom sammanslutningar*, Stockholm, 1917, p. 245.

Volkswirtschaft, das wirklich Erstrebte war.* Das empfohlene Mittel führt zu einem anderen konkreten Ziel als dem angegebenen; für das empfohlene konkrete Ziel sind andere Mittel als die angegebenen erforderlich.

Ja, wenn das Ziel gar nicht mehr konkret, sondern nur noch formal sein soll: die blosse Umstellbarkeit des Wirtschaftslebens zu erleichtern, gleichgültig, wie der konkrete Inhalt aussehen möge, so wird damit nicht verneint, dass die Umstellbarkeit heute nicht so funktioniert oder funktionieren kann wie zur Zeit der Aufstellung jener Theorie. Es darf deshalb nichteinmal die logische Möglichkeit verneint werden, dass der Staat mit seinen Massnahmen jene Umstellung des Wirtschaftslebens, die nur mit inneren Hemmungen vor sich geht, beschleunigen, erleichtern oder in bestimmter Richtung beeinflusst, womit der radikale Wirtschaftsliberalismus die innere Geschlossenheit seines Systems geopfert hat und nur der Grad des Staatseingriffes, nicht dieser selbst zur Debatte steht.

Die Geschlossenheit des wirtschaftspolitischen Systems muss jedoch immer in der vorliegenden wirtschaftlichen Proportion verankert sein. Ändert sich diese, so muss die Wirtschaftspolitik geändert werden, da die alten Massnahmen auf einem neuen Markt ganz neue Wirkungen auslösen—absolute, zeitlose Synthesen sind in der dynamischen Wirklichkeit nicht denkbar.† Bei einer schnellen Umstellung des Wirtschaftslebens können sehr leicht innere Disproportionen entstehen. Der dogmatische Liberalist wird sich auch hierbei auf das Mittel der Nonintervention festlegen. Das entscheidende Ziel muss die Erreichung des höheren Volkseinkommens sein und diesem Ziel muss sich das Mittel, gleichgültig wie es aussieht, unterordnen. Hierbei muss auch die Verbundenheit des Wirtschaftslebens mit dem ganzen Kulturmilieu beachtet werden. Die zugespitzte Behauptung Seligmans:‡ "When the world is ready for socialism, socialism will be unnecessary" übersieht diese Verbundenheit von Wirtschaft und sonstiger Kultur—man braucht den Satz nur umzukehren, um seine Hohlheit zu offenbaren. Dies bedeutet keineswegs, dass nicht z. B. die herrschende Wirtschaftspsychologie der Wirksamkeit der wirtschaftspolitischen Beeinflussung praktische Grenzen zu setzen vermag.*

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* So formuliert Ricardo das Ziel seines Agrarschutzes: "The course of trade would be left precisely on the same footing as if we were wholly an untaxed country, and every person was at liberty to employ his capital and skill in the way he should think most beneficial to himself."—D. Ricardo, *On Protection to Agriculture. The Works of David Ricardo*, 2nd ed., London, 1852, p. 480.

† K. Mannheim, *Ideologie und Utopie*, Bonn. 1929, p. 119.

‡ E. R. A. Seligman, *Principles of Economics*, 6th ed., New York, 1914, p. 686.

Weil die praktische Wirtschaftspolitik immer in einer konkreten Volkswirtschaft arbeiten muss, müssen hier praktische Einschränkungen hinsichtlich der Geschlossenheit des wirtschaftspolitischen Systems vorgenommen werden.† Eine Volkswirtschaft, die selbst keine wirtschaftliche Einheit darstellt, muss eine Wirtschaftspolitik betreiben, die "teils parallele, teils entgegengesetzte Äusserungen der sich verwirklichenden Volkswirtschaft" enthält,‡ sodass ein einheitliches wirtschaftspolitisches System in einer solchen Volkswirtschaft nicht möglich ist. Diese konkreten Bedingungen zu untersuchen, nennt Hesse § mit Recht "die umfassendste Aufgabe einer wissenschaftlichen Wirtschafts- und Sozialpolitik."

Nun brauchen die verschiedenen Teile des Wirtschaftslebens eines Staates nicht so relativ isoliert nebeneinander zu stehen wie in dem ägyptischen Beispiel, sondern können mehr oder weniger ineinandergeschaltet sein: Reste alter patriarchalischer Wirtschaft; kapitalistiche Wirtschaft in freier Konkurrenz- und Monopolverfassung; sozialistische und ständische Neuformationen etc. Hierbei kann die Wirtschaftspolitik die Gesamtverfassung mehr oder weniger nach einer Seite hin zuspitzen, ohne dabei den "gemischten" Charakter dieser Verfassung aufzuheben. Damit kann sie das Wirtschaftsresultat, von einem dieser Organisationsprinzipien aus betrachtet, erhöhen, von einem anderen vermindern. Hierbei *kann* also die wirtschaftspolitisch regulierte Volkswirtschaft eine relativ grössere innere Geschlossenheit aufweisen als das ohne ihr Eingreifen entstandene Wirtschaftsleben.

Auch das Gegenteil ist denkbar. Verschiedene wirtschaftspolitische

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* M. Weber, *Wirtschaft und Gesellschaft*, in *Grundriss der Sozialökonomik*, iii, Tübingen, 1922, p. 38.

† "Das von ihm (dem Staatsmann, dem die Führung und Gestaltung der Wirtschaft und der Wirtschaftspolitik zufällt) neuerrichtete oder umgeformte Wirtschaftsgebilde trägt in höherem Masse die Züge der Zeit und in geringerem Masse die Züge des Schöpfers als das Werk der glücklicheren politischen Staatenbildner." E. Salin, *Am Wendepunkt der deutschen Wirtschaftspolitik*. In F. Beckmann u.a. *Deutsche Agrarpolitik*, Berlin, 1932, ii, p. 684.

‡ So charakterisiert Magnus die ägyptische Wirtschaftspolitik. Er hebt hervor, dass in Ägypten die Beduinenstämme sich dem Stadium der geschlossenen Hauswirtschaft noch sehr nahe befinden, die Fellachen der Bücher'schen Stadtwirtschaft nicht unverwandt sind und daneben eine kapitalistische Volkswirtschaft, aufgebaut auf Baumwollkultur, Fremdenverkehr etc., sich entwickelt.—F. Magnus, *Aegypten. Seine volkswirtschaftlichen Grundlagen und sein Wirtschaftsleben*, Tübingen, 1913, pp. 65, 120–29.

§ A. Hesse, *Volkswirtschaftspolitik*, Jena, 1930, p. 9.

Ideologien können sogar ein relativ einheitlich geformtes Wirtschaftsleben uneinheitlich beeinflussen, sodass die widerstreitenden Prinzipien ein geringeres Wirtschaftsresultat entstehen lassen, als in dem unregulierten Wirtschaftsleben von dessen Wirtschaftsprinzip aus hätte entstehen können.

Es können auch bestehende Ungleichmässigkeiten des Wirtschaftslebens durch die Wirtschaftspolitik noch weiter gesteigert werden, d.h. die vorhandenen Spannungen werden noch grösser werden, womit die Sprengungsgefahr innerhalb eines solchen Wirtschaftslebens noch erhöht wird.

Relativ am einfachsten ist die Lage schliesslich, wenn das Wirtschaftsleben selbst einheitlich organisiert ist und die Wirtschaftspolitik diese Einheitlichkeit durch einzelne Korrekturen nur weiter steigert, insoweit verschiedene Detailfragen in Betracht kommen. Hier entstehen die geringsten inneren Spannungen, was die Wirtschaftsverfassung selbst angeht, deren Einheitlichkeit hier gewahrt bleibt.

Wir entnehmen hieraus, dass die faktische Bedeutung der inneren Geschlossenheit eines wirtschaftspolitischen Systems niemals als eine blosse Konsequenz dieses theoretischen Systems beurteilt werden kann, sondern es muss immer auf den Zusammenklang zwischen wirtschaftspolitischem System und wirtschaftlicher Wirklichkeit geachtet werden.

Diese historische Differenzierung unserer theoretischen Erkenntnisse wird zur Selbstverständlichkeit, wenn hier die vorhandene Wirtschaftsverfassung und die Art ihrer wirtschaftspolitischen Umänderung zum entscheidenden Problem wird.

FOREIGN TRADE AND THE SHORT BUSINESS CYCLE

A STUDY BASED ON DATA FOR THE UNITED STATES DURING THE PERIOD 1923 TO 1929

FOLKE HILGERDT, *Secretariat of the League of Nations, Geneva*

I

BETWEEN the recognized world depressions which began in the middle of 1920 and late in 1929, in several important countries there occurred three distinct price cycles, each of about three years' length, which caused fluctuations in production and in trade. The following pages are intended as an approach to the study of these short business cycles*—a study which seems the more important because the present depression appears to be a direct outcome of these minor fluctuations.

There are two reasons why these cycles have attracted very little attention. In marked contrast to the longer cycle, short cycles are not parallel in different countries. They are manifested by changes in the relation between prices of primary products and of manufactured articles; accordingly, prosperity in industrial countries often means a depression in agricultural or mining countries, whose barter terms are then unfavourable, and *vice versa.* Secondly, the manner in which the economic life of different countries reacts to the price movements in question depends not only upon the nature of their production but also upon their trade policy. For this reason, special attention will be paid in this study to the role played by foreign trade in the fluctuations under review.

For reasons of space, the analysis will be confined mainly to the United States, where the economic fluctuations were very marked and to a certain extent determined the conditions prevalent elsewhere.

But the result of the analysis will be determined by our recognition of price fluctuations which are international in scope and whose effects upon trade differ from those of the national price movements which are well known from the usual deductive studies of international trade, in which account is taken only to two countries, which generally have the strange predilection for trading only with each other and sometimes even for exchanging only one article for another.

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* The word "cycle" is used for the sake of convenience, though it is not assumed that the fluctuations by nature are recurring.

During heavy depressions, such as those experienced in 1920–21 and in the last few years, certain of the ordinary interactions between different economic phenomena are broken or concealed by factors not at work in more "normal" times. These depressions therefore evade, to some extent, an analysis on the basis of the kind of data used in the present study, which is deliberately confined to the period from 1922–23 up to the autumn of 1929. Structural changes which are connected with the longer cycle from 1920 to 1929 will, so far as possible, be disregarded.

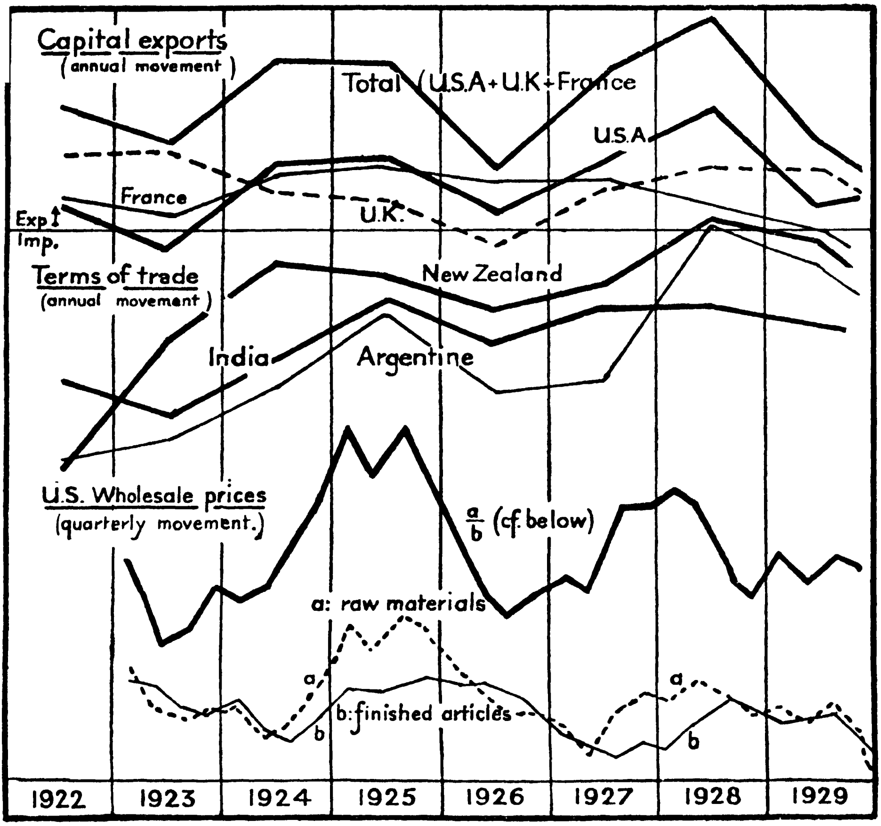

DIAGRAM I

CAPITAL MOVEMENTS AND PRICES

II

Diagram I shows (i) capital exports from the three main capital exporting countries of the world—the United States, the United Kingdom, and France—; (ii) "the terms of trade," measured by calculating the average export prices as percentages of the average import prices for a number of countries exporting primary goods and importing manufactured articles, that is, the relation between prices of primary goods and manufactured goods; and (iii) the index numbers of wholesale prices of industrial raw materials and manufactured articles in the United States, together with the former index as a percentage of the latter. The curves mentioned under (iii) are based on quarterly figures; for the others the annual movement alone is available.

There was an obvious *tendency for capital exports to contract and expand simultaneously in different lending countries* during this period.* The correlation between the three groups of curves (at least after 1923) is striking enough. *Capital exports culminated around 1925 and 1928, and in these years prices of primary products on the world market as well as in the United States were also the highest in relation to manufactured articles.* Before and after the years mentioned, as well as in 1926, capital exports were smaller and prices of primary goods relatively low.

Reference to the price curves for the United States show that, at least as far as that country is concerned, the changes in relative prices were due not to an increase in the prices of primary products and a simultaneous fall in the price of manufactured articles, or *vice versa*, but to a more rapid upward or downward movement of the prices of primary products, both the groups of prices moving more or less simultaneously in the same direction.

Capital movements and prices influence each other reciprocally in a manner which cannot be completely analysed here. Certain of the most obvious inter-relations may, however, be briefly indicated. A restriction of the supply of foreign capital induces borrowing countries —industrial as well as raw material producing—to try to increase exports and reduce imports by means of a reduction of domestic stocks. The increase in offer and reduction in demand from borrowing countries tends to cause a fall in prices on the world market, though for several reasons primary goods will generally fall more in price than manufactured articles.* Conversely, a fall in the prices of primary products—which will entail a smaller fall in the prices of other goods—renders the barter terms of the countries exporting such products in exchange for manufactured articles less favourable, affects adversely their domestic financial and economic conditions, and discourages foreign investments in these countries, which, with very few exceptions, are typical borrowers.

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* The continuation of French capital exports during 1926, when those of Great Britain and the United States fell (see the graph), is largely to be attributed to capital flight during the franc depreciation of that year.

On the other hand, variations in the supply of foreign capital to each individual borrowing country will not necessarily be reflected in the barter terms of that country. If during a certain year when international credit is abundant an agricultural exporting country, say Australia, cannot borrow abroad for any local (e.g. political or monetary) reason, then her export products—wool, wheat, etc.—will not necessarily fall in price, as they are sold in the world market in competition with the same products exported by other borrowing countries, such as Argentina, Canada, etc. If the capital which is not invested in Australia is instead lent to these countries, it supports the international price of wool, wheat, etc., in the same way as if it had been lent to Australia, and there is no reason why Australia's terms of trade should deteriorate. Moreover, as prices of primary products have a tendency to move together, it may be that even if the capital were lent to non-industrial countries whose products—like those, for example, of Java or Mexico—are not sold in competition with Australian goods, it would nevertheless help to support the price of these goods.

III

The curves for the wholesale prices of raw materials and finished products in the United States given in Diagram I have been repeated in Diagram II (curves B and C). During the period under review the two former curves described cycles of some three years' length, but raw material prices showed greater movements than prices of finished products, both upwards and downwards; in addition, they generally began to move somewhat—one- to two-quarters—earlier than the latter.

The curve for industrial production (D) follows a course similar to that of the price curves. But the changes, particularly the downward

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* It should be observed, however, that in borrowing industrial countries, e.g. Germany, changes in the supply of foreign capital affect primarily the prices of manufactured articles, which accordingly show a tendency to move more rapidly than those of primary products.

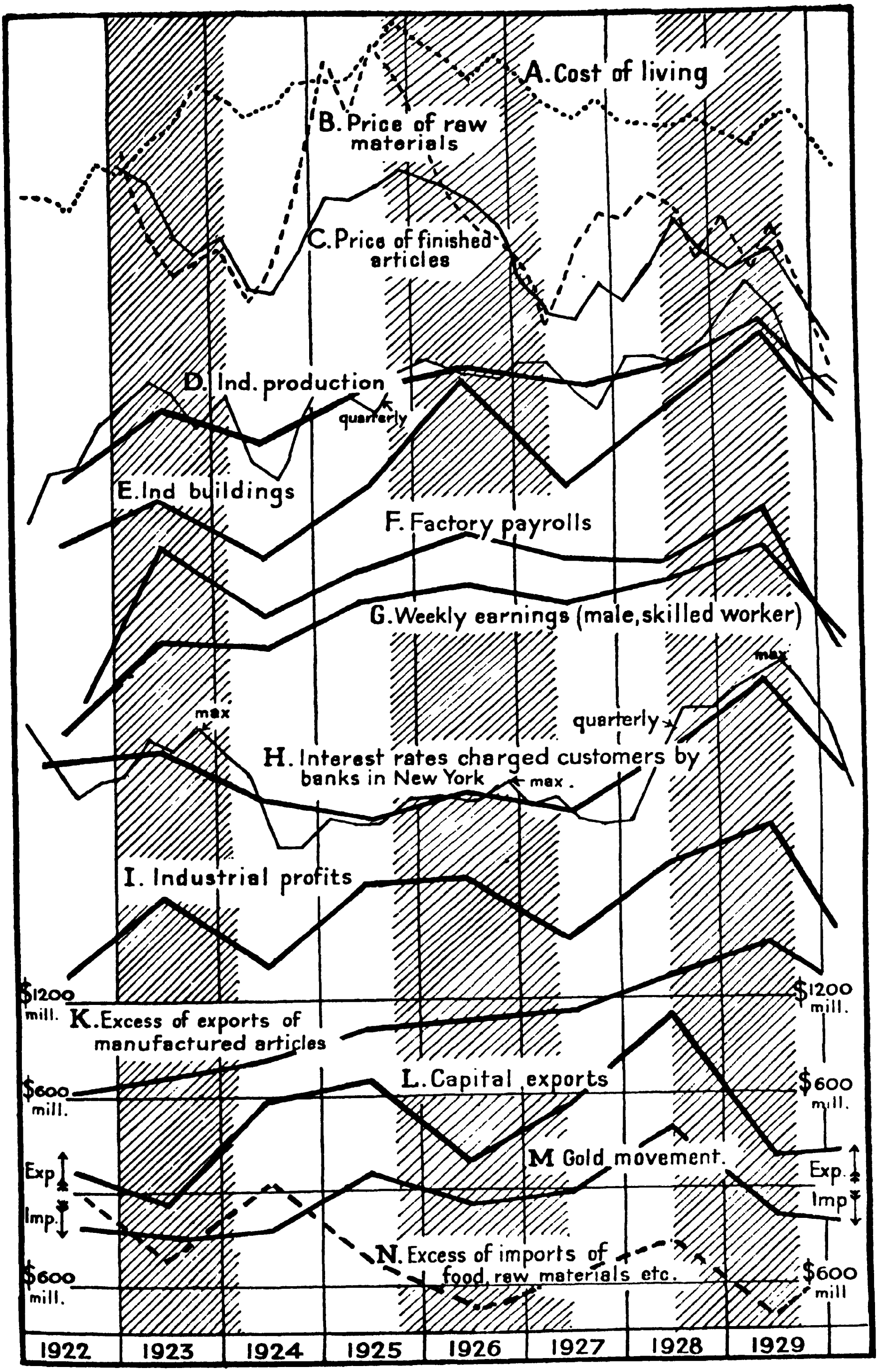

DIAGRAM II

UNITED STATES: PRICES, INDUSTRY, CAPITAL EXPORTS, AND TRADE

Thick lines: annual movement; thin lines: quarterly movement changes, in production came later even than those in the prices of finished products, so that the peaks occurred in the middle of 1923, around the end of the year 1926, and in the middle of 1929—that is, *at times when the price movement was clearly downwards.* In 1925–26 and 1928–29 industrial production continued to increase for a whole year after the downward price movement had begun (in 1925 and 1928).

In the same way, construction of industrial buildings (curve E) was also greatest during the periods when prices were falling.

A possible explanation of this behaviour of industrial production and investment—and an explanation which would not contradict the ordinary conception of the connection which exists between price movements and economic activities—would be that it naturally takes some time before certain of these activities adjust themselves to the price movements by which they are determined. The increase in production and in the construction of factory buildings in 1925–26 and 1928–29 would be caused by the rise of prices in 1924 and 1927–28, etc. The logical sequence of this explanation would indeed be that it is the time-lag between different economic reactions which determines the course of the fluctuations which are the object of the present study.

We cannot wholly share such an opinion. The last United States boom, for example, was hardly more than an ordinary expansion of business until the downward movement of prices began. The curve for industrial buildings—which represents building contracts awarded, that is, buildings commenced—gathered pace very considerably after the downward turn of prices in 1925 and 1928. *The price fall indeed appears to have favoured the booms.* Although a time-lag between production and price movements exists, it is certainly not of the simple kind indicated above.

The problem is worthy of further consideration in the light of other data. For the sake of simplicity we shall confine ourselves to the boom periods (shadowed on the diagram), and as their course was slightly different we shall primarily have that of 1928–29 in mind. This boom was much more marked than the two preceding, and attracted world-wide attention owing to the Stock Exchange speculation which accompanied it; but statistical evidence suggests that, in so far as basic economic activities are concerned, all the three booms are of the same nature. One of the discrepancies between the 1923 and 1925–26 boom on the one hand, and the 1928–29 boom on the other, is that the price fall was less marked during the latter. Price indices conceal, however, the falling tendency in 1928–29 in the prices of primary products, many of which were artificially maintained at a level above that which would have established itself in a free market. The marked tendency to industrial integration in these years may be attributed partly to the endeavours of manufacturing industries to escape the high raw material costs resulting from this price control.

IV

The curve for United States capital exports (curve L)—which represents nothing more than the surplus derived from trade in goods and gold, services and net receipts of interest and dividends—is almost the exact reverse of the curve for industrial buildings. Its minima, occurring in 1923, 1926, and 1929, coincide with the maxima of industrial production and investment.*

Reference to the connection previously found between prices and capital movements indicates that, so far from being determined by the previous rise in prices, the increase in domestic production and investment in these years was *logically connected with the fall in prices.* In times when the capital market is not disorganized (as during the present depression, when there appears to be a considerable disequilibrium between savings and investment), a reduction in capital exports implies that available savings are absorbed by the increased domestic demand for capital, or that these savings are reduced owing to an increase in domestic consumption. In either case domestic production is supported by the heavy domestic demand for manufactured articles, coinciding with the fall in prices which, as we have found on a previous page, accompanies the reduction in capital exports.

From whom did the heavy demand for goods come in the United States during the boom years in question?

Obviously not from the agricultural population, or at least only to the extent that the fall in the wholesale prices in its products may have been offset by an increase in crops.

From wage-earners? Certainly, judging from the peaks of the two curves (F and G), showing the weekly earnings of wage-earners and payrolls. The greater increase in payrolls than in weekly earnings is due to the fact that the number of wage-earners employed rose, and there was less short-time and irregular employment. It should be noted that, as the cost of living (see curve A) did not rise in 1926 and 1928–29, and as its increase from 1922 to 1923 was less than 3 % against 10 % for wages and 28 % for payrolls, there was a real quantitative increase in demand, presumably in the direction of articles of consumption.

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* In this connection it may be pointed out that although the United States capital exports reached their apex in 1928, their decline commenced in the middle of that year.

From the part of the population—important particularly in view of its power of purchasing goods—employed in the distribution of goods, from the grocer to the small shopkeeper? Undoubtedly, for while wholesale prices fell rapidly, retail prices were not much affected—that is, the margin, from which the merchant derives his profit, rose.

From the share-owner and the industrialist? The high quantitative level of production during the years considered coincided with large industrial profits (curve I), although prices were falling. The fact that raw materials fell more heavily in price than manufactured goods is not, by itself, a proof that the producer's margin rose, for as the share of raw materials in the value of total industrial production in the United States is about one-third, prices of industrial raw materials must fall three times as much as those of manufactured articles before the profit increases (assuming that labour and capital costs, etc., remain unchanged), and the price indices (curves B and C), which are admittedly only rough approximations, do not permit a reliable calculation of the margin. The direct information summarized in curves F to I indicates, however, that the price fall during the booms differed from that during the depression of 1930–32 in so far as *the producer's margin, in terms of money, between the price of raw materials and manufactured goods rose, and that this increase was distributed over other cost elements* (*wages, interest, etc., rose*) *as well as industrial profits*. Even where the profit per unit produced remained unchanged, the expansion of production implied an increase in total profits.

The rationalization of production may well have been one of the factors rendering an increase in wages, interest, profits, etc., possible. There were hardly any greater possibilities of rationalization, however, during the booms than during the intervening periods, and we are entitled not to consider rationalization as the original cause of the fluctuations in question.

In view of the increase in industrial profits it is but natural that there was also a heavy demand for building material and equipment from industrial enterprises under foundation or extending their plant (see curve E).

V

The fall in wholesale prices, most marked in the case of primary products, was thus accompanied by *an increase in demand for manufactured goods* from the main groups of buyers, except agriculturists.

If the change in relative prices during the boom years had implied only a redistribution of the national income, the total demand for goods would not have been affected; but the fact that prices fell (while the amount of the means of payment and, for all that we know, the velocity of their circulation remained unchanged or rose) implied an increase in the aggregate demand for goods.

Where, owing to tariffs, no great imports of manufactured articles can take place, the increase in turnover and the length of such a boom is limited by the productive capacity of the industry. In particular, the production of consumers' goods will be checked, as the increase in industrial profits leads to a change in the distribution of the country's productive forces in favour of industries producing capital goods. Suppose that in a country which does not import or export manufactured articles the satisfaction of an increase in the demand for consumers' goods of, say, 10 % in one year requires a similar extension of existing plant,* the industries producing capital goods would have to increase their production by some 40 % or even more (assuming that the proportion between industries producing capital and consumption goods is the same as in the United States)—a rate which is obviously above the limit of what is possible in a short period, as the supply of certain factors of production, particularly labour, is limited. There are obviously very narrow limits to an increase in consumption in an isolated country, as such an increase causes an extension of investment activity, which within a certain time breaks down for lack of resources.

The experience of the past decade suggests that there are two ways out of such a boom. The most natural is an increase in wholesale prices, and such an increase will, contrary to common notions, check the boom, provided that prices of raw materials increase so much more than those of manufactured articles that the producer's margin between these prices falls and accordingly the incentive to the extension of plant is mitigated or disappears. The demand for labour will be reduced, wages and employment will decrease as well as the quantities of manufactured articles which can be disposed of. A new equilibrium will soon be reached, and therefore a basis for a normal rate expansion of production (not of the nature of a boom), if the society is progressive.

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* This assumption is hardly unrealistic, for although temporarily the new demand may be met by a better utilization of the capacity of the industries producing consumers' goods, economic forces will tend to create an extension of plant corresponding to the increase in demand for the products, and the capital industries producing equipment (machinery, building materials, etc.) will also have to increase their plant considerably if they shall be able to meet the new demand for their products. Probably plant would have to be increased by a higher rate than the demand for consumers' goods, for, unless there is a great reserve army of unemployed at the disposal of the industrialists, it might be necessary to rationalize also a part of the old production by substituting capital (e.g. machinery) for labour.

The other way out is an accelerated fall in prices leading to a heavy depression. The prices of manufactured articles will fall so heavily that industrial profits decrease (which, according to our findings on a previous page, does not mean that they should fall at anything like the same rate as prices of raw materials), and the reduction in the demand for consumers' goods will be reached by a heavier fall in wages than in the prices of such goods, or—which is more likely—by a heavy increase in unemployment.

Owing to the tendency for the prices of raw materials and manufactured articles to move together (with a short time-lag for the latter), adjustment will normally not be reached through a change in one of these two groups of commodities alone, or by a movement of one group of prices in a direction opposite to that of the other. Whether a price increase or decrease will take place *will depend upon the factors determining the movement of raw material prices on the world market.*

Naturally, conditions in the world market are influenced and sometimes determined by the capital outflow from the United States. When the boom comes to an end, large amounts of capital are normally becoming available for export and will tend to raise prices of primary products in the world market. It is for this reason that we regard the former of the above-mentioned two alternatives as the most natural.

Unfortunately, space does not permit us to analyse the relationship between the credit policy of the Federal Reserve Board and business conditions in the United States or capital exports from that country. Our aim is to draw the attention to factors which have been less discussed but which cannot be ignored if a country by means of its credit policy is to succeed in determining domestic business conditions.

We cannot abstain, however, from drawing a general conclusion with reference to central bank policy. A credit policy aiming at the maintenance of a stable so-called general price level will render the business fluctuations considered above more violent. As we have seen, these fluctuations are characterized by movements in opposite directions of the prices of raw materials and of the services constituting other cost elements in manufacturing. If the central bank meets a fall in raw material prices, originating abroad, with a credit expansion, these prices will not be substantially affected, but those of manufactured goods will be prevented from following the downward trend of the former (in fact, they would have to rise if the policy of stabilizing the general price level were carried out). The margin between the prices of raw materials and of manufactured goods—consisting of wages, profits, etc.—will then increase more than otherwise and the boom accordingly become more acute.

It follows that any country, which aims at stabilizing manufacturing conditions and is unable or unwilling to affect the whole international credit situation and thus the very origin of the price movements considered, will have to meet a fall in raw material prices by credit restriction and a rise in their prices by credit expansion. It is obvious, however, that such a monetary policy, however successful it may be in an individual country, is no universal remedy against the business fluctuations under review, as—particularly if generally applied—it will increase the initial disturbances by preventing the demand for raw materials from fluctuating conversely with their price. The only remedy which attacks the evil at its root is, as we shall see, a trade policy allowing manufactured goods to move between countries without hindrance.

VI

At this point of the analysis we have to consider the correlation between the prices of primary goods and capital movements found in Section II. As was stated on a previous page, their influence upon each other is reciprocal: if the capital supply to debtor countries is being reduced, the prices of primary goods will fall, owing to an increase in offer from the debtor countries producing them and a reduction in the demand from industrial debtor countries (which will consume their stocks); and if the prices of primary products fall, the financial position of countries producing them will deteriorate and foreign investments in these countries will be discouraged.

There seems to be no doubt, however, that the initial factor is generally a variation in capital movements, determined at the outset by political or monetary factors unconnected with price movements. The contraction in international capital movements in 1923 would appear to have been due largely to the repercussions of the Reparations dispute, the Ruhr occupation, and the ensuing hyper-inflation of certain Central European currencies; with the termination of the occupation and the introduction of a stable currency in Germany there came a revival of capital movements and an increase in the prices of primary products.

In 1925–26 the stabilization of the pound sterling at a relatively high level and the subsequent British coal dispute adversely affected the capital exports of the United Kingdom, and both the ensuing fall in the prices of primary products and the boom tendencies this price fall provoked (in the manner indicated on a previous page) in other lending countries made capital exports from these countries fall. Only French capital exports continued in the form of a flight of capital from the fluctuating French franc. The settlement of the coal dispute and a certain adjustment of wages in the United Kingdom restored capital exports and prices of primary goods.

Various factors, which cannot be analysed here, had by that time led to an increase in the production of primary goods and prepared the way for a fall in their prices; but the main factor determining the price fall which began in 1928 was undoubtedly the legal stabilization of the French franc, leading to a heavy contraction of the large French capital exports. The boom which then occurred in the lending industrial countries was particularly marked in the United States, where it led to a heavy increase in domestic investments and where, in the manner described above, it had exhausted its possibilities in the autumn of 1929. But the contraction of French capital exports had not ceased; on the contrary, owing to the continued heavy withdrawals of French assets abroad, France at that time changed from a capital exporting to a capital importing country (which she had been ever since). Further, the artificial control of the prices of certain primary products had led to a marked increase in their production. No return to a more stable equilibrium through an increase in prices was therefore possible; the boom was followed by an accelerated price decline which was unaffected by the small temporary increase in capital exports from other lending countries during the first few months of the depression, and after some time the collapse of prices and the deterioration of the international capital market was complete.

Had not the disequilibria now referred to existed, the outflow of capital from the United States when the boom broke down would have tended to raise prices in the world market and a new short business cycle might have commenced.

The above interpretation of events implies a negation of the hypothesis that the fluctuations in economic activity are due to the time-lag between different economic phenomena. A time-lag—though of the complicated nature described above—certainly exists between different phases of the business cycle; but if the only factor at work were the effect of each phase upon the next, the fluctuations would soon disappear. The main course of events is determined by factors outside the automatic working of the economic system.

VII

The heavy demand for manufactured articles, which was characteristic of the boom years in the United States, was not met to any considerable extent by imports. The import of such articles is comparatively small —it is estimated at 2·3 % of domestic consumption—and disregarding a slight increase in value during the period under review, the yearly changes were of no importance. Imports of manufactured goods consist largely of specialties which have to be acquired from abroad as they cannot be produced except at very high cost in the United States. The high, in many cases prohibitive, import duties prevent the import of manufactured articles both from reaching large proportions and from showing important variations over short periods.

Nor could the increased demand be met by a reduction in American exports of manufactured articles, largely because these exports are specialized in character and unsuited to meet a general increase in domestic demand. Exports of manufactured goods increased in each year during the period 1922–29.

The total trade in manufactured articles thus resulted in a surplus which rose steadily during the period, *without reflecting variations in business conditions* (curve K).

Obviously, however, the contraction of capital exports during the boom years had to be offset by a change in other items in the United States' balance of international payments. The offsetting items were the import of goods other than manufactured articles—mainly industrial raw materials—and the movement of gold.

Raw materials are admitted into the United States free of duty or at low rates. The high level of industrial activity during the boom years caused an increase in imports of raw materials, which culminated in 1923, 1926, and 1929 (curve N).*

From the point of view of this analysis it is important to consider that while an increase in the imports of manufactured articles would have helped to meet the great domestic demand and thus would have mitigated the boom in manufacturing industries, the increase in the import of raw materials only supported the great activity in these industries.

The increase in the import of raw materials was, however, limited by the capacity of industry to work them up economically. In addition, the industries producing capital goods are largely dependent upon the local production of certain raw materials. For these reasons the reduction in capital exports was not wholly offset by larger imports of raw materials but was partly reflected in gold movements, the curve for which (M) is almost parallel with that for capital movements. During the boom years there was an inflow of gold, while in the years of heavy capital exports the gold movement was outwards.

It is evident from the above reasoning that the variation in gold movements must partly be attributed to the duties on manufactured articles.

The coincidence of gold imports and boom conditions may seem natural in view of the fact that when the prices of raw materials fall and the supply of foreign capital is reduced, debtor countries may find that the export of gold is the only way in which they are able to balance their international accounts.

The gold imports into the United States may be considered as having contributed to an increase (or as having prevented a decrease) in the volume of means of payment in circulation in that country, at the same time as they compelled the borrowing (gold exporting) countries to deflate and reduce the prices of the primary products they export—both factors supporting the boom in the United States.

During the intervening periods both the domestic price level, which was sustained by means of tariffs, and tariffs in other countries prevented an increase in the export of goods corresponding to the rise in capital exports, which accordingly took the form partly of an outflow of gold. To the extent that this occurred, domestic industry failed to derive the benefit from the new demand for goods from debtor countries which resulted from the increase in their borrowings and the rise in the prices of their main export products.

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* In order that curve N should correspond with the other curves for trade (K–M), it shows net imports as a negative quantity, i.e. the lower the curve, the larger are imports.

Let us consider for a moment what would have happened if import duties had not constituted a hindrance to imports of manufactured articles into the United States. Imports of such articles would then have increased considerably during the boom periods. Simultaneously the fall in the prices of raw materials would have slowed down as the demand for them would have increased in the countries exporting manufactured goods to the United States—that is, in the lending industrial countries where the boom tendencies were less marked, and in the few borrowing industrial countries. In the latter group depression actually prevailed, owing to the reduced supply of capital from abroad. The result would have been (i) a reduction in the domestic demand in the United States for manufactured goods of domestic origin; (ii) a reduction in the producer's margin between the prices of raw materials and manufactured articles in the United States, leading to reduced industrial profits and checking the high industrial activity; (iii) accordingly, a discouragement of the abnormal investment activity which, as we have shown, was more responsible for the sharpness of the last United States boom than the high demand for consumers' goods; (iv) a lessening of the pressure upon borrowing countries, industrial and non-industrial; (v) an incentive to increase capital exports from the creditor countries.

It might be asked whether the existence of trade barriers which restricted the movement of manufactured goods into the United States and other countries was not wholly responsible for the effect produced upon relative prices by the changes in international capital movements which have been described in Section II above. We would not, however, venture to go so far as this because, as a result of the universality of price movements, a boom will tend to occur simultaneously in all industrial lending countries, and an exchange of manufactured articles among these countries may well mitigate the boom by distributing it evenly between different countries and industries and furthering the international specialization of production,* but it can hardly remove the conditions which caused the boom. There remain, of course, the exports from the industrialized debtor countries (the importance of increased German exports to the European creditor countries in 1928 and 1929 as a factor checking the boom in these countries and mitigating the depression in Germany should not be under-estimated), but it must be remembered that industrial countries seldom remain borrowers over long periods and that probably neither Germany nor Austria would have been debtor countries had it not been for the redistribution of wealth which took place as a result of the war and the ensuing monetary disturbances. So long as the majority of industrial countries are lenders on balance and the majority of non-industrial countries borrowers, disturbances in international capital movements would probably cause certain price movements and business cycle fluctuations even if there were no trade restrictions. But just as a tension must lessen if the forces producing it are being spread over a wider area, so would *the amplitude of business cycle fluctuations be smaller if the effects of an initial disturbance were spread over a larger number of countries.*

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* A heavy increase in the exchange of manufactured goods between lending industrial countries actually took place in 1928–29.

It has been pointed out by several authors that, when variations in capital movements occur, the existence of high tariffs leads to gold movements between countries. The object of the above reasoning is, however, to show that, given the connection between capital movements, prices, and industrial activity, these *gold movements directly sharpen business fluctuations* (even disregarding the monetary effects of a redistribution of gold which, under normal conditions, may be of slight importance).

Conversely, *one of the greatest*—but largely overlooked—*benefits of international trade in goods (particularly manufactured goods) is that it moderates business fluctuations.* Deviations from normal capital movements may be offset by the movement of either goods (and services) or gold; but while, during a period such as that under review, the movement of goods tends to remove the very incitement to the change in the capital balance, that of gold increases it. We have thus departed rather far from the conceptions of the classical theory of trade, which saw in the gold movements an instrument for attaining equilibrium.

VIII

Our reasoning is also contrary to the conceptions which are at the bottom of the policy of economic isolation pursued by many countries.* This policy does not mean that they question the validity of the doctrine of free trade (though modern economists seem to have deprived this doctrine of the bulk of its theoretical significance), but rather that they are prepared to give up the so-called maximization of national income in the long run if, in return, they achieve stability in domestic production, undisturbed by fluctuations in foreign competition. By stabilizing prices or at least preventing them from being greatly affected by foreign influences, tariffs—it is often believed—prevent a country from being drawn into the swing of the business cycle of the outside world.

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* We are still considering the conditions prevailing before the general tightening of the trade barriers during the present depression.

The error in this attractive reasoning lies in the fact that in almost all countries modern tariffs are very ingeniously elaborated in order to serve a protective purpose: if this purpose, as generally is the case, is the protection of manufacturing industries, then raw materials are generally duty-free or only liable to very low rates, while manufactured goods have to pay rates which increase with the degree of manufacture and are often prohibitive. The United States tariff is probably one of the most refined in this direction. Tariffs may well have a certain stabilizing effect upon the prices of manufactured goods, but will not prevent those of primary products from fluctuating. In the case of the United States, a great number of such products are, moreover, export articles sold abroad in competition with those exported by other countries, and it therefore follows that their domestic price should be determined by the quotations on the world market.

Briefly, tariffs do not prevent changes in price relations, originating abroad, from taking place within a given country. They do not, therefore, prevent changes in industrial profits and in the domestic demand for consumers' and capital goods, which are the result of the disturbed price relations, from occurring. But they may well prevent an increase in the demand for goods of this kind being met by means of imports. This demand and the accompanying movement of security values and interest rates impels domestic capitalists and banks to invest their money at home instead of abroad; but in so far as the change in the capital movement is reflected only in the balance of gold movements, it leaves to national production alone the task of bringing forth the real investments in the form of plant, houses, etc., which correspond to the increase in money investment. The difficulties experienced by national production in satisfying the heavy demand then tends to increase the margin between the prices of primary and manufactured products and thus to sharpen the boom. It is hardly necessary to prove that the factors which render the upward swing in the business cycle more active will, after the business cycle has turned, also tend to aggravate the depression.

We are entitled to believe that in the case of countries a comparatively large share of whose domestic production is disposed of abroad as a result of a liberal trade policy, foreign demand has a stabilizing effect upon domestic industrial activity.

Thus in the case of the United Kingdom relatively high prices of raw materials are accompanied by an increase in demand for industrial articles on the part of foreign raw material producing countries which are the main foreign customers of the British export industries, as well as on the part of the numerous British shareholders in foreign raw material producing enterprises. "These factors are far more important in the case of the United Kingdom than in the case of the United States, first, because the former country normally exports not far from 30 % of its total production of movable commodities, while the corresponding percentage for the latter is only about one-third as great, and secondly, because the net receipts of interest and dividends on account of foreign investments represent about 6 % of the national income of the former country but less than 1 % of the latter."*

In Germany also, where, in spite of a protective tariff policy, no economic isolation of the same kind as in the United States prevailed before the depression and where, accordingly, a large part of manufacturing industry was working for export, the export industry was an important stabilizing factor. Thus while the supply of foreign capital to Germany began to dwindle as early as the end of 1927, with the result that the domestic demand for goods fell off, industrial activity was maintained and even slightly expanded until 1929, thanks to larger exports, particularly of machinery and other capital goods. During the present depression, the fact that industrial exports fell less than the domestic demand, at least up to the end of 1931, has mitigated the decline in German industrial production.

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* *Balances of Payments, 1930* (League of Nations).

FOREIGN TRADE AND THE SHORT BUSINESS CYCLE

SOURCES OF THE INFORMATION SUMMARIZED IN THE DIAGRAMS

The information concerning capital and gold movements is derived from *Balance of Payments, 1930* (League of Nations Publications, 1931, II.A.28/II); those concerning the terms of trade of India, the Argentine, and New Zealand have been calculated from price indices for exported and imported goods given in *Review of World Trade, 1930* (League of Nations Publications, 1931, II.A.28/I).

The source of the data concerning interest rates is the *Eighteenth Annual Report of the Federal Reserve Board, covering Operations for the Year 1931*; that of industrial profits, *Economic Tendencies in the United States*; *Aspects of Pre-war and Post-war Changes*, by Frederic C. Mills (Publications of the National Bureau of Economic Research, Inc., No. 21), and *Statistics of Income for 1930* (United States Treasury Department); that of weekly earnings of wage-earners, *Wages in the United States, 1914–1930* (National Industrial Conference Board, Inc.); and that of foreign trade figures the *Commerce Yearbook, 1932, Part I* (United States Department of Commerce).

The remaining information is collected from *Survey of Current Business* (United States Department of Commerce), in most cases from its 1932 annual supplement.

AMERICAN PUBLIC OPINION AND WAR DEBTS

JACOB H. HOLLANDER, *Johns Hopkins University, Baltimore*

It is of all things important in a sober discussion of the subject of this article that at the outset the matters to be discussed should be made precise. I propose, therefore, to define in approved homiletical fashion what I understand to be the meaning of the major terms of my topic, "American Public Opinion and the War Debts."

The phrase "War Debts" is simple enough. The "Statement of the Public Debt of the United States" as of October 31, 1932, the latest date available, reports the Total Foreign Obligations owned by the United States Government to be in round numbers $11,777,000,000.

From this we may omit from consideration (*a*) $250,000,000, being cash advances to Czechoslovakia and Russia; (*b*) $21,000,000, being payment for surplus war supplies to Czechoslovakia, Nicaragua, and Russia; (*c*) $19,000,000 for relief supplies sold on credit by the American Relief Administration to Armenia, Czechoslovakia, and Russia; (*d*) $7,000,000 for relief supplies sold on credit by the United States Grain Corporation to Armenia, Czechoslovakia; (*e*) $386,000,000 for account of reimbursement of the United States Army of Occupation in Germany. There remain Funded Bonds to the aggregate of $11,094,000,000, received under a series of debt funding agreements as authorized by Acts of Congress extending from February 9, 1922, to December 18, 1929. This total of $11,094,000,000 represent debits of fourteen separate countries. Of them the four largest debtors are England, $4,398,000,000; France, $3,864,000,000; Italy $2,004,000,000; Belgium, $401,000,000. My comments, although applicable to the entire series, will envisage the four enumerated major debtors.

The phrase "American Public Opinion" is more subtle. Its content has baffled those foreign observers—De Tocqueville, Bryce, Siegfried—who have understood other aspects of our national life. It is imperfectly comprehended, because taken for granted, by the American people itself. It is grossly mistaken by the European world.

We shall perhaps simplify the problem by setting forth what "American Public Opinion"—in regard to the War Debts—is *not*.

It is not the internationalism of expatriates who as unofficial ambassadors in Paris, London, Rome, or Brussels deprecate the stupidity of the American people.

It is not the domestic counterpart of this galaxy—the small, distinguished, and extremely voluble intelligentsia in the United States who in or out of academic seclusion frame concepts of international idealism highly creditable to their benevolence but remote from the severities of Real-Politik—much the same company who after the Versailles Conference acclaimed Woodrow Wilson and the League of Nations only to suffer the engulfment of the presidential election of 1920.

American public opinion is not the unanimity of American banking circles who, taking their note from the great banks and issue houses, bleat "peace on earth and good will to men," with incidental regard to the protection of private credits and loans, extended European borrowers in the buoyant optimism of the late twenties.

Neither the Press of the United States nor its legislative bodies are representative of American public opinion in the matter of the War Debts. Our newspapers are not "inspired" in the European sense, but they are pre-eminently conservative and prudent. One wide-flung chain has a definite alignment in opposition, and the small-town weeklies by sheer proximity reflect something of their readers' opinion. But the great city newspapers inevitably incline, in this as in other matters, to the stronger battalions of finance, industry, and commerce. This applies primarily to the editorial page. As to the news columns there is regard for the best traditions of a free Press. But a journal cannot afford a foreign correspondent whose despatches are unsympathetic with the views entertained in the quarter to which he must have recourse for fresh information. Nor in any event can it control the garbling of its own news reports by European editors. In a recent senatorial debate on the War Debts, speaker after speaker voiced strong anti-cancellationist views. One speaker alone expressed different opinion. The debate was reported fully, or at least fairly, by important American papers. In the French Press, according to return cables, the congenial utterance was featured, almost to the exclusion of the dominant strain.

Instinctively we turn finally to our legislative halls for a faithful echo of public opinion. The text-books enjoin this upon us. But the political realist knows that the moth-eaten tradition is a pious fraud. The controlling purpose of an elected representative from the day of his election is to insure the likelihood of his re-election. It is a political axiom that the surest way of accomplishing this is to offend, that is, to differ in profession from, the smallest possible number of constituents. The pose of apostle of the forgotten man or of conservator of vested interests may have spiritual appeal; but the safer role of the American publicist is to say nothing, do nothing, be nothing—except as ordained by political expediency, partisan advantage, and the strength of an organized minority.

If American public opinion be so impalpable and so elusive a thing, what chance is there of appraising it? And yet the attempt must be made if we are to escape from impasse. *Vox populi* may not be *vox Dei*, but in all vital matters of public policy it is definitive. Experience and instruction may modify, even reverse it. But at any given time with respect to any given issue, it is the court of last resort. No policy can prevail that runs counter to it; no resistance to what it wills can endure. The Monroe Doctrine is supported by such opinion. American adherence to the League of Nations is counter to it. The public-school system is an expression of public opinion. Licensed gambling is at variance with it. It is because Europe has failed to accept this truism, because continental foreign offices, as if not sufficiently chastened by the penalties of crude acquaintance with the American constitutional system, have been unwilling or unable to gauge American public opinion that the War Debts remain unpaid.

I shall venture, therefore, of necessity, to set forth my conception as to what at this time is American public opinion on the War Debts. I can claim no authority other than my own; no virtue beyond objectivity. But it will be refreshing to replace advocacy by photograph. The image may be imperfect or blurred or distorted. Yet at least we shall be dealing with what is, rather than sputtering over what ought to be.

Let me accordingly give way on this rostrum to that more interesting speaker—the American Citizen. He dwells sometimes on the side streets of small towns, sometimes in the modest two-story houses of industrial cities, sometimes on simple farms. He lives in Maine or California, in Dakota or Texas. He is artisan, corner grocer, farmer, school teacher, bank clerk. On this occasion, at least, he will break his habitual silence and voice the faith that is in him.

"The War Debts," he says, "or more accurately the Funded Bonds of foreign governments now in the Treasury of the United States, are my property. They belong to me as definitely as does the note I hold for the money lent my hard-up neighbour, or as the mortgage on my home belongs to the lending bank. It is my property, not as a fat surplus but as something on which I am relying for economic security in the dreary years to come. Fifteen years ago I had saved up by sacrifice and denial a moderate sum. In 1915–19 I was persuaded to lend this to Uncle Sam so that he in turn might lend it to beleaguered countries for food, munitions, supplies, and reconstruction purposes. I did so because of emotional appeal and strong-arm propaganda. I was not in the least influenced by the fear, since so solemnly presented, that unless Germany were defeated my own country would be the next to suffer. Had it been urged I should have said then that as between a truculent Germany and an embattled France there was little choice. Certainly I should say that now. No! I fell for brass bands and brass buttons. 'Bleeding Belgium,' 'Stricken France,' 'Stout Old England,' 'Teuton Fury,' 'A War to End Wars,' 'Making the World Safe for Democracy'—these were the catchwords with which I was gulled. I emptied out the woollen sock, drew down the savings account, kept John home from college, refused Mary her promised marriage settlement. I bought Liberty Bonds—bought them, as I was besought, until it *hurt*, giving up what I had saved, scaling down what I used, mortgaging what I was to get.

"For what I lent, Government bonds—Liberties—were given me, bearing interest and sinking fund provision. At the time I did not realize that this in itself was hanky-panky; that it was I who would have to pay myself interest, that what came into one hand as coupon money was to be paid over by the other as debt service taxes. When I awoke to the fact, I was reassured, officially, that this was only a temporary delay, that the War over, the borrowing countries would assume debt service and that Uncle Sam, so paid, would reimburse me for what I had lent without thereafter taking it out of my pocket in taxation.

"The War came to an end. But, as Bastable had long before assured me, 'borrowing is an agreeable process'; and with so complacent a lender intrepidity in battle was succeeded by readiness in debt. Reconstruction, rehabilitation, purchase of supplies, even rearmament were paid for by me. Only when the habit threatened to become chronic did I post the sign 'No More Funds—to lend'—with a reaction ranging from affronted dignity to angry abuse on the part of the chronic borrowers.

"With the Versailles Conference the veil first dropped from my eyes. I had been fed on noble phrases—'the parliament of man,' 'self-determination,' 'open covenants,' 'Fourteen Points,' 'a spoilless triumph.' Instead, I saw a Carthaginian victory, a struggle for loot, barn-yard amenities, secret treaties, cunning, intrigue, deception.

I thought of the sacrifices and denials of my household, of the distress and misery that lay ahead, of my neighbours' boys who had fallen that American valour might be acclaimed and Congressional medals of honour be bestowed—and I suffered a form of mental nausea.

"I believe history will appraise the World War in its net result as definitely *a profitable war*, for the victors, as the campaigns of Caesar and Napoleon. The settlements were in the spirit of *Vae Victis*, applied with the brutality of Brennus. I realize there is no common denominator for human suffering and material gain. But time brings healing for the first and makes no deduction from the second. The Peace Treaties are but fourteen years behind us, but even now I may venture what another generation hence will assert, that as the life of a nation goes—in territorial gain, in political benefit, in economic advantage, as against blood spilt and treasure wasted, the Allies—France, England, Italy, Belgium—when the throes of readjustment have subsided, will be accounted richer and stronger than before the War, indeed by reason of the War.

"In the distribution of loot," continues our speaker, "my country took no part, save in the moderation of rapacity, and accepted no share. We were not more virtuous or more tender—our part in the Mexican War and in the Spanish-American is sufficient commentary—but we were neither frenzied in resentment nor competent to gain. So I returned to my appointed place, bruised a little, disillusioned more. The 'Lafayette, We are Here' and the 'Hands Across the Sea' business had not turned out as they were supposed. Things, moreover, at home had gone topsy-turvy, for one cannot drop his tools and run off to help put out a neighbour's fire and not find a mess when he comes back. But after all this was in the day's work, even though made a bit sour by grudging thanks from those whom I had aided.

"The worst, however, was yet to come. The one assurance on which I had counted was that, the War over and a period of grace given, my savings were to be returned to me at least in payment of interest, without the cheating device of accompanying taxation. This meant that the Allies would at the earliest date begin the service of the War Debts. I was skilled neither in the ways of the Quai d'Orsay nor of Downing Street. At first barely audibly, then unmistakably, then noisily, with counterpart accompaniment from defined groups in this country, the age-old cry of the reluctant debtor was raised: 'It is not right that I should pay; though I wanted to, I could not pay; and even if I could and did pay it would be bad for you to be paid.'

"The first phase of the Debt Cancellation case was accordingly advocacy of cancellation for reasons moral, economic, international:

1. The War Debts *ought not* to be paid, because the War was a common cause to which the Allies contributed men and to which the United States contributed money.
2. The War Debts *could not* be paid because the Allies had not enough gold with which to pay, and because they lacked an exportable surplus and our tariff walls in any case shut it out.
3. The War Debts *must not* be paid—in the interest of the United States as well as Europe—because world recovery was only possible if the slate were wiped clean.

I was not convinced by the logic; but I have had to do with slow debtors before, so I agreed to the Funding Arrangements of 1922–29. The principal of the Debts were scaled down, the interest rates were reduced, the dates of maturity extended. Even more than all this the principle of capacity was inserted in the Funding Contracts. No debtor country should be asked to repay more at any given date than it was able then to pay—and the issue as to fact might be raised by the debtor at any time.

"The years have passed. Time holds the bank, and history has displaced controversy. It now appears that I was right on all three counts. The moral argument has melted away. The economic argument has been answered by fact. The international argument has become a fantasy. Capacity—the sufficient defence of an honestly distressed creditor—dare not even be raised.

"In this second stage of the War Debts, mendicancy has been succeeded by default. The alignment has become clear. One of the great debtors—directed by astute absolutism—has realized how advantageous is the settlement heretofore made; has conformed to it; and has gained in stature. The second—historically a creditor country whose economic existence lies in the fidelity of contracts—has kept faith, even at heavy cost, and is assured of fair, even generous, re-examination. From the two remaining countries—where it was least to be expected—there has come default. None of the worn-out defences are used—except by our domiciled 'foreign legion'—but in lieu a recriminative complaint of seduction and betrayal in the Hoover–Laval conference.

"I know that in conversation among nations it is conventional never to call a spade a spade, but always an agricultural implement.

Yet I believe that as the final act of an administration, which the future is certain to appraise far higher than does the present, President Hoover should directly and categorically, with calm unreserve and full documentation, scotch once and for all this reptilian dialectic.

"This is why," says my somewhat winded spokesman, for he does not often hold forth at such length and with such explicitness, "this is why I see, perhaps, not red but pink when there is talk of cancellation or revision, except as provided, to the advantage of the defaulting countries. My opinion is clear, strong, unshakable: they 'hired the money'; they profited by its use; they are able to repay it now, and I need it badly. If they do not pay, I shall not go to war. But my memory is long. I had not forgotten Lafayette. I remember Château Thierry and the Argonne, and I shall not forget December 15, 1932."

Thus far I have acted as reporter. With that report, let me add, I am in full agreement. But *Civis Americanus* is a realist, not a seer, certainly not one prone to prevision. My part in this programme will not have been filled unless to this imaginary conversation to which you have patiently listened should be added a few comments of what at least one observer conceives to be the wider effects of cancellationist advocacy.

I believe such advocacy involves the gravest consequences—economic, social, and international—to the United States and to the whole civilized world. *Economic*, because whatever measure of accord society in five centuries of slow progress has reached, is in largest degree assignable to the growth of financial faith between nation and nation. It is in this manner that commerce has grown, that undeveloped countries have expanded, that backward states have been stabilized, that international division of labour has spread, that the surplus income of older societies has found productive use in the needs of newer areas. The one factor which has made all of this possible has been the inviolability of economic contract. It has been incorporated in law; it has been accepted *in mores*. It is the one secure enduring link in economic association. Abandon it, corrupt it, even challenge it, and the economic world falls apart in disassociated nationalism—reluctant and distrustful.

The *social* menace of Cancellationist advocacy is developing with disturbing swiftness before our eyes. The unmistakable appearance, indeed the creeping spread of repudiation sentiment in the United States and in South and Central America—by inflation, by postponement, by cancellation—as to public indebtedness, corporate obligations, mortgage liens, business liabilities, is a direct repercussion of the countenance given to War Debt cancellation. If we are able to lighten the burdens of foreigners who are able to pay, why should we not preferentially lighten the burdens of our own citizens who are not able to pay? runs the challenge. If not charity, certainly grace begins at home. It is an amazing thing to me that those in high financial place, with the fullest knowledge of what economic contract means in the well-being of a people, will encourage the project of cancellation abroad, and cry unto heaven at any whisper of repudiation at home.

To a company such as this—dedicated to the cause and cure of war—it is the *international* consequence of Cancellation advocacy that must appear its dire menace. Whatever an unborn to-morrow may unfold as to a federation of the world and the part the United States shall play in it, we should be blind to international realities, blind as children playing with fire in an arsenal are blind, if we did not recognize that the role of this country, now and as far ahead as our generation can scan, is that of moderator. We have no interest in the irritants and provocations of European war. Our wish for peace is as near an undiluted humanitarianism as a political society can conceive. We cannot impose our judgment upon armament-expanding, war-threatening nations by fleets and armies. Our one resource in the cause of peace is our *economic* strength. Here are food and material and, above all, capital—to be withheld or supplied as right and justice, in our conception, shall determine. This is the one great chance of serving the cause of peace. Are we to cast it away?

THE EQUATION OF PAYMENTS

WILHELM KEILHAU, *University of Oslo*

I

ECONOMICS, like mathematics, deal with quantities, but under other aspects. In economics the final questions always relate, not to the quantities as such, but to their importance for human wants, human purposes, human well-being. The interdependence of economic magnitudes are ruled by their own laws. Economic values are results of valuations and transactions which cannot be described in accordance with the four rules of arithmetic because they are always in some way or other determined by psychological factors. Whether we try to explain them in the terminology of the marginal school or whether we prefer Professor Cassel's principle of scarcity, we are always bound to view them from the angle of human requirements.

In modern economics, however, one special field of investigation is commonly dealt with in another way: the domestic value of money. Here we prefer to use aggregates and averages. Nothing is heard about wants and requirements. Great importance is attached to quantities as such. The path of reasoning is laid across the barrier between mathematical and economic values. We are breathing in another air.

The explanation of this phenomenon is not difficult to find. Whether the quantity theory of money is formulated in a more or less orthodox way, it is always built on the equation of exchange, which is thought to be a mere truism. This equation is indeed accepted also by authors who decidedly reject the quantity theory itself. Most writers consider it to be a headstone in the theory of money. It is, therefore, worth while to submit this equation to an analysis in order to find out whether it really deserves its basic place in monetary theory.

For the purpose of this investigation the formula of Professor Irving Fisher will be most fitting. It enjoys the most widespread reputation, and it embodies the reasoning more fully than its competitors. We will, accordingly, analyse the formula

$$P = \frac{MV + M'V'}{T}$$

II

The determining magnitude in Irving Fisher's equation of exchange is the quantity of money in use, denoted by M. In order to adjudicate upon the reasoning, it is, therefore, necessary to realize what Irving Fisher includes in his concept of money. The definition is found in the very first paragraph of his celebrated treatise on *The Purchasing Power of Money*. It runs as follows: "*Commodities* include all movable wealth (except man himself), whether raw materials or finished products. . . . Any commodity to be called 'money' must be *generally acceptable in exchange*, and any commodity generally acceptable in exchange should be called money."* This is an extremely wide concept. Irving Fisher admits that himself. He writes: "All that is necessary in order that any good may be money is that general acceptability attach to it. On the frontier, without any legal sanction, money is sometimes gold dust or gold nuggets. In the colony of Virginia it was tobacco. Among the Indians in New England it was wampum. In German New Guinea the bent tusks of a boar are used as money. . . ."†

In modern economics, however, such an unlimited definition of money does not enjoy "general acceptability." On the contrary, the other leading authors on the subject agree in adding other characteristics to the substance called money. They also agree in perceiving money as a special means of payment. Cassel declares that any means of payment which is commonly recognized as such should be called money.‡ Mr. R. G. Hawtrey defines: "Money is the means established by law (or custom) for the payment of debts."§ He is followed by Mr. Keynes: "Money itself, namely, that by delivery of which debt-contracts and price-contracts are *discharged*, and in the shape of which a store of General Purchasing Power is *held*. . . ."‖ Quite to the same category of definitions belongs that of Knapp. According to him money consists in pieces authorized by law to serve as signs of payment.¶

This view of modern theory has in a strange way been confirmed by the results of the latest historical investigations. Bernhard Laum has proved that the metallic coins of the Mediterranean nations have their origin in religious payments, coin being substitute for cattle and other offerings in kind.* And Max Weber has summed up the results of his extensive historical research work in the sentence that the function of money as authorized means of payment is prior to that of being a general medium of exchange.†

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* Irving Fisher, *The Purchasing Power of Money*, New and revised edition, New York, 1925, p. 2.

† Irving Fisher, l.c., p. 8.

‡ Gustav Cassel, *Theoretische Sozialökonomie*, 1918, p. 330.

§ R. G. Hawtrey, *Currency and Credit*, 3rd ed., London, 1928, p. 17.

‖ John Maynard Keynes, *A Treatise on Money*, London, 1930, i, p. 3.

¶ G. F. Knapp, *Staatliche Theorie des Geldes*, 3rd ed., 1921, pp. 30–31.

But if we look upon the definition of money given by Irving Fisher in the light of modern theory and the teaching of history we find that it simply identifies money with the general medium of exchange. Thus Irving Fisher has eliminated from his concept of money just those characteristics which are essential for the understanding of the purposes which money serves. Building on this definition he is able to confine himself to a discussion of the rôle which money plays in production and trade. Complicated problems spring from the fact that a considerable part of the payments, having influence upon the issue of money and the velocity of monetary circulation, is effected to discharge one-sided obligations, but Irving Fisher does not perceive them. We know from the theory of foreign exchange that the balance of trade is an incomplete equation for the purpose of describing the determination of the external values of money—a balance of payments is needed. In the theory of domestic monetary values the equation of exchange exactly corresponds to the balance of trade.

If the definition could be given in accordance with the views of Irving Fisher almost any commodity in the world might serve as money. Irving Fisher himself expressly declares that the list of money-commodities could be extended indefinitely.‡ Not so if money is explained as the legal means of payment, for in order to provide a medium for this purpose it must be graduated, it must satisfy the claims of a standard, each individual piece of it must have a fixed relation to a unit of measurement, and this unit must be established by authority and characterized by a name of its own. These necessary qualities of money should indeed be included in the definition itself. However, without doing this both Hawtrey and Keynes fully realize the fact. There is no evidence that Irving Fisher has been aware of it. His money is a most nebulous sort of thing.

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* Bernhard Laum, *Heiliges Geld*, Tübingen, 1925, and *Über das Wesen des Münzgeldes*, 1929.

† Max Weber, *Wirtschaftsgeschichte*. Herausgegeben von Hellmann und Palyi, 1923, p. 209.

‡ Irving Fisher, l.c., p. 9.

III

The starting-point of Irving Fisher is the statement that in a given community during a given period, e.g. one year, a total amount of money is expended for goods. It is denoted by E.* In reality, it is made up of a series of individual payments. We may symbolize this fact by the equation

$$E = e_1 + e_2 \ldots + e_n \quad . \quad . \quad . \quad . \quad (1)$$

This equation, however, does not tell us very much. It is also left out by Irving Fisher, who goes on to point out that we have to deal with the prices of goods exchanged and quantities of goods exchanged. The different articles he calls $Q_1, Q_2 \ldots Q_n$; each of them is exchanged for money a certain number of times during the year. Next he introduces the magnitudes $p_1, p_2 \ldots p_n$, being the averages of the prices on $Q_1, Q_2 \ldots Q_n$† weighted according to their quantities,‡ writing "the goods side of the equation"

$$E = p_1Q_1 + p_2Q_2 + \ldots + p_nQ_n = \Sigma pQ \quad . \quad . \quad (I)$$

He adds: "We may, if we wish, further simplify the right side by writing it in the form PT where P is a weighted average of all the p's, and T is the sum of all the Q's. P then represents in one magnitude the level of prices, and T represents in one magnitude the volume of trade."§ This gives the equation

$$E = p_1Q_1 + p_2Q_2 + \ldots + p_nQ_n = \Sigma pQ = PT \quad . \quad (II)$$

This very short argument needs a closer analysis.

It follows from equation (II) that

$$P = \frac{p_1Q_1 + p_2Q_2 + \ldots + p_nQ_n}{Q_1 + Q_2 + \ldots + Q_n} \quad . \quad . \quad . \quad (IIb)$$

In other words, equation (II) defines P as a weighted average of all the p's with the Q's used as weights. If we chose any other symbol for the prices than this specific form of average the equation will not hold good. To illustrate this we may take the simplest possible example, only examining $p_1Q_1 + p_2Q_2$, giving to those magnitudes the arbitrarily chosen values $(10 \cdot 1000) + (1000 \cdot 10)$ where $\Sigma pQ = 20{,}000$. If we here use, for instance, an unweighted P—the arithmetic mean of the p's—the value of PT will be 510,050. But this taken into consideration, it is not correct to say that P in the formula of Irving Fisher simply is what economists call "the level of prices." Nay, P is a much more specific symbol, and any effort to illustrate its variations through price indices of the types commonly used in modern statistics will be doomed to failure.

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* Irving Fisher, l.c., p. 24. † Ibid., p. 25. ‡ Ibid., p. 357. § Ibid., p. 27.

Thus, viewed from the angle of economics, P is a rather dubious magnitude in the equation of exchange. T is still worse. For what sort of magnitude is T? A sum of mere numbers, each of them symbolizing a quantity of its own kind. If in a given community during a given period, say a week, the figures $5 + 17{,}250{,}305 + 1$ are included in the quantities making up T, these figures may stand for five landed estates, 17,250,305 loaves of bread and one battleship. And such numbers with the most deviating denominations should simply be added together for the purpose of making up a sum "representing in one magnitude the volume of trade"!

In reality, it is impossible to find any common standard for measuring commodities outside the sphere of economic values—in practical life that is to say outside monetary values. It is rather strange that this should be forgotten in the making of just this equation. But it seems to be so. Irving Fisher must have overlooked the fact that

$$E = p_1Q_1 + p_2Q_2 + \dots + p_nQ_n = \Sigma pQ \quad \text{. . (I)}$$

is a monetary equation, its justification lying in the circumstance that both sides of it represent values expressed in terms of money. Not having perceived that every monetary value necessarily implies a relation to a monetary unit he has, indeed, introduced into his equation magnitudes representing quantities without their economic denomination, thus concealing their true character. Choosing, e.g., the pound to represent the monetary unit, we have, therefore, to rewrite the equations in order to make them economically adequate:

$$E£ = (e_1 + e_2 + \dots + e_n)£ \quad \text{. . . . . . . (1)}$$

$$E£ = (p_1Q_1 + p_2Q_2 + \dots + p_nQ_n)£ = \Sigma pQ£ \quad \text{. . (2)}$$

IV

If we then turn to the money side of the problem the reasoning of Irving Fisher may be summarized as follows:

In a community without banks the payments will be effected by money. But each piece of money may perform its service several times during the period. If M be the average quantity of money in use, $\frac{E}{M}$ will represent its velocity of circulation. This fraction being denoted V, we may write

$$E = MV \quad . \quad . \quad . \quad . \quad . \quad . \quad (\mathrm{III})$$

It should be underlined that this formula is intended to cover also the payments in a community using Bills of Exchange; the endorsed and discounted drafts will here—to use the phrase of Knut Wicksell—serve as a medium for accelerating the velocity of circulation.*

In a community possessing commercial banks, on the other hand, a part of the total expenditure being denoted E' will be paid through them. If M' represents the total deposits subject to transfer by cheque, and $\frac{E'}{M'}$ is expressed by V', the complete money side of the equation may be written

$$E = MV + M'V' \quad . \quad . \quad . \quad . \quad . \quad (\mathrm{IV})$$

In order to analyse this reasoning we shall have to make clear the nature of the magnitude E, or more correctly $E£$, as viewed from the monetary angle. It is conspicuous that $E£$ is not an amount of money but an economic value expressed in terms of money. $E£$ is simply the grand total of all payments for expenditure effected during a fixed period for the purpose of discharging obligations stipulated in money as standard of value. In the monetary book-keeping of trade it represents what is called "the one side of the ledger." Explained in the modern terminology of economics $E£$ accordingly belongs to the concept "Money-of-Account" as defined by Hawtrey and Keynes.† In principle it has nothing to do with currency.

The next question will be: In what ways have those payments been effected?

In order to obtain a legal discharge three ways have been open:

(1) Payment by what Mr. Keynes calls "Money-Proper," i.e. coin, banknotes, or other paper currency.

(2) Payment by compensation, in our days principally by bank transfer.

(3) Payment by bullion, in our days gold bullion—metal used as "pensatoric payment," to speak with Knapp.

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* Knut Wicksell, *Föreläsningar i Nationalekonomi*, 3rd ed., Lund, 1929, ii, particularly p. 61.

† Hawtrey, l.c., p. 2. Keynes, l.c., p. 3.

Other ways do not exist. To hand over a cheque is not to pay, it represents only an initial step in a transaction of payment, at most it may be called a provisional payment, for if the cheque is not honoured by the bank the drawer is not discharged; he must pay, nevertheless. An important consequence is this: when cheques are handed over the payment is effected either in currency or through bank transfer. This means that M in Fisher's formula is also used in the effectuation of payments through banks. Accordingly, M and M' have no clear delimitation towards each other. The co-ordinate banking factor of M is in reality the amount of bank transfers. This amount we call G, in accordance with the international expression "giro." It has no discernible relation to the quantity of money. Belonging wholly to the sphere of money-of-account it has no velocity of circulation. It is wholly dependent on the banking customs of the country in question. Any effort to dissolve it for the purpose of the equation will be fruitless.

Payment by bullion we will denote by B. In this case also the idea of turnover is out of the question. Bullion is not currency.

If we rewrite the money side in accordance with these adjustments, the equation of exchange will appear in a more modest, but also a more adequate, form:

$$E\pounds = \Sigma pQ\pounds = (MV + G + B)\pounds \quad . \quad . \quad . \quad (3)$$

However, in one respect even this expression is rather obscure. E means the monetary value of the total expenditure. It will, however, be almost impossible to point out which payments have been made for actual expenditure and which not. If we then remember that an equation of exchange will cover only a part of the monetary functions all arguments will be in favour of extending the formula in order to make it applicable to the discharge of all obligations stipulated in terms of money. We therefore introduce the magnitude S, being the grand total of all payments performed in the community during the given period, and extend the meaning of the other magnitudes accordingly. This will give us the following formula:

$$S\pounds = (MV + G + B)\pounds \quad . \quad . \quad . \quad . \quad (4)$$

We propose to call this expression *the equation of payments.*

V

The magnitude P in Irving Fisher's formula is often misunderstood. A considerable part of the discussion concerning the quantity theory of money has been based on the supposition that variations in P may be expressed by wholesale indices. It is not so. Even apart from the fact that P must be weighted in a special way to satisfy the equation, it is a magnitude of its own kind. It represents a sort of compound price level. Irving Fisher in his own investigations has, in addition to the wholesale prices, included wages and stocks, giving to the three groups the weights of, respectively, 30, 1, and 3, certainly a most arbitrary procedure.* Mr. Erling Petersen, in a treatise published in February 1933, has come to the conclusion that up to the present time the only known effort to construct a compound index useful for the purpose is that of Mr. Carl Snyder for the United States of America after 1875.† It should be added that one more difficulty is connected with P: in contrast to the generally used economic indices P must for each period be weighted anew. After all, it would hardly mean a heavy loss to economic theory if the discussion concerning the purchasing power of money were at last emancipated from the magnitude P in the equation of exchange.

One other point ought to be remembered in this connection. In the opinion of Irving Fisher the quantity conception of purchasing power based upon the equation of exchange represents a sort of static theory. He remarks expressly: ". . . the 'quantity theory' will not hold true strictly and absolutely during transition periods."‡ As pointed out by Cassel in a most convincing manner, such an idea is not self-consistent. Cassel concludes by saying: "The clause of other things equal is here absolutely inadmissible."§

It is, however, to be doubted whether the equation of exchange may be characterized as static. It does not describe any equilibrium nor any long-lasting state of affairs, nor does it give the instantaneous photograph of the current situation. Its figures simply represent the numbers of some quantities that have been observed in a certain period of the past. It belongs to a class of statements that may be termed *historical equations*. It does not embody a law of variations.

Accordingly, it is an unfounded procedure to study the variations in monetary values through a mathematical treatment of the equation of exchange. Here again T proves to be the most problematic magnitude in the formula. It is, indeed, of no consequence to speak about the effects on P of variations in T, for as an aggregate T can only vary if variations occur in its constitutive parts, and alterations in the Q's affect the corresponding p's direct through influences upon human valuations. It is only because they overlook this most important fact that Irving Fisher and his followers are able to eliminate from the theory of purchasing power everything connected with the general principles of economic valuations.

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* Irving Fisher, l.c., p. 487.

† Erling Petersen, *Den moderne Kvantitetsteoris Gyldighet*, Oslo, 1933, pp. 15–16.

‡ Irving Fisher, l.c., p. 161.

§ Cassel, l.c., p. 394.

VI

The original sources of the activity of man are always to be found in human needs, wants, and desires. In the case of the quantity theory this has only too often been forgotten. Hardly ever have economists spoken about money required for human purposes. This must have its explanation in a sort of neurotic complex, a fear of inflationism. But in science all fear is the work of the devil. In this case it is also wholly unfounded: in a rational community the want of currency will be counterbalanced by the want of stable money. Therefore economic theory can without scruple begin its treatment of monetary values with an analysis of the requirements for money.

For this purpose we may fix the attention on the fact that the principal want of money is instigated by five groups within the community:

(1) All of us in our wish to buy consumable goods and services.

(2) Producers and business men desiring money for buying labour, instrumental goods, and raw materials.

(3) Debtors wanting legal tender to discharge their debts.

(4) Investors and speculators wanting money to buy "private capital," i.e. rights to income.

(5) Public institutions requiring money for the satisfaction of collective wants.

In the expounding of the quantity theory money is always spoken of as the means for transferring "the volume of trade." If we acknowledge the elementary fact that money is also wanted for other purposes of payments, we are bound to admit that the effect of an increment in the quantity of money will depend on the purpose to be satisfied by that increment.

In this relation there is a noteworthy difference between banknotes on the one hand and other paper money as well as coin on the other. The latter forms of currency have generally been issued by the State and used in payments for consumable goods and services; accordingly, those quantities of money have for a considerable time remained in circulation between individuals and have only partly returned to the Treasury when taxes were paid. Banknotes, on the contrary, are issued by a bank, given as short-term loans to entrepreneurs and other business men, and have generally returned to the bank in aggregates at time of expiration.

This fact may suffice to make it clear that in the theory of internal monetary values we have not to deal with quantity problems but with circulation problems. As the equation of exchange must be replaced by an equation of payments the quantity theory will therefore sooner or later have to be replaced by a circulation theory of money. This new doctrine will surely have the advantage of being more in accordance with the general principles of economic science.

THE GOLD EXCHANGE STANDARD

EDWIN WALTER KEMMERER, *Princeton University, Princeton, N.J.*

THE gold exchange standard is a variety of the gold standard, since the unit of value is the value of a fixed quantity of gold in a free gold market. Its outstanding characteristic is that it provides for redemption of the various forms of fiduciary money in drafts on gold funds located abroad, rather than in gold coin or gold bullion at home. The gold exchange standard is a monetary standard that has come into prominence since the beginning of the present century, although instances of practices closely akin to those of the modern gold exchange standard are found over a century ago.* At the time of the outbreak of the World War the gold exchange standard was in operation in India, the Philippine Islands, Java, the Straits Settlements, Nicaragua, and a few other countries.

All varieties of the gold standard broke down during the period of the World War. With the world's gradual return to the gold standard during the decade after the war the gold exchange standard became very popular, and the principles of the gold exchange standard were incorporated in varying degrees in the currency systems of a majority of the gold standard countries of the world. The gold exchange standard was favoured by the Financial Commission of the Genoa Conference of 1922.

OBJECT OF GOLD EXCHANGE STANDARD

The object of the gold exchange standard is the extension of the principal advantages of the gold standard to countries not financially able or, for other reasons, not willing to use gold coins, in any considerable degree, as media of exchange, or to redeem their fiduciary money in gold bars. The gold exchange standard is essentially a mechanism for providing a gold standard without a gold currency. Usually in gold exchange standard countries the money in circulation is mostly paper and silver.

* Cf., for example, the currency plan for British colonies and dependencies outlined in a Treasury Minute of February 11, 1825, described by E. H. D. Arndt in his *Banking and Currency Development in South Africa*, p. 45.

THE PRINCIPLE OF THE GOLD EXCHANGE STANDARD AS EXEMPLIFIED IN THE EXPERIENCE OF THE PHILIPPINE ISLANDS

Probably the nearest approach to the "Simon-pure" gold exchange standard which the world has seen was the currency of the Philippine Islands as it was administered from 1905 to about 1910, under the Philippine Gold Standard Act of October 10, 1903. This system will therefore serve well for purposes of illustration.*

At the beginning of this period the currency of the Philippine Islands consisted chiefly of fiduciary silver pesos, fractional silver coins, minor coins of nickel and copper, silver certificates issued by the Government and supported by a 100 % reserve of silver pesos held in the vaults of the Government treasury, and a few million pesos of bank-notes. There was some United States money in circulation, but gold coin was rarely seen. Under American control no Philippine gold coins were minted, and those which had been minted many years before, under the Spanish régime, had long since disappeared from circulation.

The Philippine Coinage Act, passed by the United States Congress, March 2, 1903, had declared that the unit of value of the Philippine Islands should be a theoretical gold peso (not coined) consisting of 12·9 grains of gold, 0·900 fine, and therefore exactly equivalent to 50 cents of United States gold coin, and had required that the silver peso and all the fractional coins of the Islands should be kept at parity with this gold monetary unit.

For maintaining the parity of Philippine silver coins with gold at this rate, the Philippine Gold Standard Act of 1903 created a special reserve fund known as the Gold Standard Fund. This fund was composed of the proceeds of a loan which the Philippine Government floated for the purpose, of all seigniorage profits realized in the coinage of the new money, and of certain other profits incidental to the administration of the currency. It was a trust fund, kept separate from all other Government funds, and to be used exclusively for the maintenance of the gold parity of the Philippine currency. The law provided that part of the Fund should be kept in Manila and part in New York.

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* Unfortunately, for a time during later years, every fundamental principle of the gold exchange standard was ignored by those in authority in the Philippine Islands, with the result that the Philippine gold exchange standard suffered severely. The system was later restored, however, and to-day is functioning much like it did in this earlier period. Cf. E. W. Kemmerer, *Modern Currency Reforms*, pp. 314–23 and 365–82.

For the maintenance of the parity three forms of redemption were provided in the law, the principal one—the only one that concerns us here—being mandatory, and the other two incidental and optional with the Government.* The principal form of redemption was in gold drafts on New York. The Philippine Treasurer was directed to sell, on demand, for Philippine currency, drafts (in sums of $5,000 or more) on that part of the Gold Standard Fund kept on deposit in a New York bank, charging for the same a premium of three-fourths of 1 % for demand drafts and of 1⅛ % for telegraphic transfers. It was likewise provided in the law that the bank in New York, which acted as the depository of the Gold Standard Fund, should sell drafts (in sums of ₱10,000 or more) on that part of the Gold Standard Fund held in the Treasury vaults in Manila, payable in Philippine currency, charging for them the same premium rates.

All Philippine currency brought to the Philippine Treasury for the purchase of exchange on New York, pursuant to the above provisions of law, was required immediately to be withdrawn from circulation, *and physically kept in the Treasury vaults.* The money so withdrawn from circulation—with certain qualifications that do not concern us here—could not be paid out again, except in response to drafts drawn by the Gold Standard Fund depository bank in New York, on the Fund in Manila, or for the purchase of silver to provide a needed increase in coinage.

The object of the sale of drafts was to provide a means for the maintenance of the parity, and to that end of automatically adjusting the currency supply to the varying demands of trade, without the necessity of introducing gold coins into circulation; in other words, to create "a gold standard without a gold currency." Every legitimate function of a gold currency, except that of shipment to and from other countries in making international trade payments, could be performed as well by the Philippine silver and paper currency as by gold coin. In fact, this Philippine silver and paper currency was better adapted than gold coins would have been to the needs of Philippine trade and to the tastes of the great majority of the Filipino people. Some provision, however, had to be made for the performance of this function of money of making international trade payments that could not be performed by Philippine fiduciary money. This function of money, or of bullion promptly exchangeable for money on demand, is not only important because it provides a means by which foreign trade payments are made, but it is still more important because it is through the performance of this function that the currency supply is adjusted to the currency demand, and that the parity of the currency is maintained by a reduction in the circulation in times of relative redundancy of the currency and an increase in times of relative scarcity.

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* For a more detailed account of this system, including an explanation of the other two forms of redemption, cf. the author's *Modern Currency Reforms*, pp. 317–23.

When, in the trade among gold standard countries, the balance of payments becomes strongly unfavourable in one of them, exchange rates rise to the gold-export point, registering a relative redundancy of the home currency, and gold is exported. Likewise, it is true, that when in the trade among gold-standard countries the balance of payments becomes strongly favourable in one of them, exchange rates fall to the gold-import point, registering a relative scarcity of the home currency, and gold is imported. All the expenses of shipping gold, including packing, cartage, freight, insurance, interest, and loss from abrasion are borne by the shipper.

Under the gold exchange standard, as it existed in the Philippines in 1905, this same fundamental principle applied. The premium charged by the Government in Manila for dollar exchange on New York, and the premium charged by the Government's depository bank in New York for peso exchange on Manila, were fixed to represent as nearly as possible the actual commercial costs of shipping gold bars between the two cities.*

When, for example, exchange rates in Manila on New York rose to the gold-export point, the actual gold was not exported, as it would have been under similar circumstances in the United States, and other gold coin or gold bullion standard countries, but the Philippine Government gave the would-be gold exporter, in exchange for his Philippine currency in Manila, a draft entitling him to the gold credit in New York, and charged him as a premium for the draft simply the amount which the actual exportation of the equivalent in gold bars from Manila to New York would have cost him, had he exported the gold himself.

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* Shortly after the Philippine Gold Standard Act was passed, the rates charged in New York for peso exchange on Manila were reduced, to prevent settlements being made by the shipment to Manila of United States paper currency, which could be imported into the Philippines more cheaply than could gold bars and which circulated in the Islands.

The Philippine pesos paid to the Government for the draft (exclusive of the premium) were equivalent to the amount of gold he would have shipped. They (including the premium charged) were withdrawn from circulation by the Government and stored away in the vaults of the Gold Standard Fund—a procedure which reduced the circulation of Philippine currency as effectively as the actual exportation of an equivalent amount of Philippine coins would have done.

When, on the other hand, exchange rates in Manila on New York fell to Manila's gold-import point (which would mean that in New York rates on Manila had risen to New York's gold-export point), the depository of the Philippine Gold Standard Fund in New York gave the would-be gold exporter in New York, in exchange for his gold (or its equivalent in United States currency), a draft entitling him to the equivalent in Philippine pesos laid down in Manila, and charged him (for the credit of the Philippine Gold Standard Fund) a premium sufficient to cover the expenses that he would have incurred under the gold coin standard, had he actually shipped the equivalent in gold bars from New York to Manila. When the drafts on the Gold Standard Fund were presented in Manila for payment, they were paid in pesos, *physically withdrawn from the vaults* of the Gold Standard Fund, and this payment increased the Philippine currency circulation as truly as would the importation into the Islands of an equivalent amount of Philippine gold coins.

The system was just as automatic in its regulation of the money supply to the needs of trade as a gold coin or gold bullion standard would have been, although there was no gold coin in circulation in the Philippines, and no gold reserve was required there. Aside from such official transfers as those for the army and navy (which in practice interfered somewhat with the perfect functioning of the system), the Government had nothing to do with commercial exchange, except at the gold (or currency) shipping-point rates. These points represented the limits of fluctuation in the gold exchange value of the peso which the Government imposed. When exchange rates rose to the gold-export point, the Government virtually said: "So far they may rise and no farther. A further advance would signify a depreciation of our peso below its legal gold par if we were on a gold coin standard, and it will be so interpreted under the gold exchange standard; therefore we will sell on demand gold drafts on New York (in sums of $5,000 and multiples thereof) in unlimited quantities at these gold-export-point rates, and will relieve the currency redundancy by withdrawing from circulation the pesos paid to us for these drafts." On the other hand, when exchange rates in Manila fell to the gold-import-point (later the United States paper currency import-point), the Government virtually said: "So far they may fall and no farther; a further decline would signify an appreciation of our peso above its legal gold par if we were on a gold coin standard, and it will be so interpreted under the gold exchange standard; therefore we will sell on demand pesos laid down in Manila (in sums of ₱10,000, and multiples thereof) in unlimited quantities at these gold (or currency) import-point rates, to be paid for by gold or its equivalent in New York. This will relieve the currency scarcity in the Islands by pouring pesos into circulation from the Gold Standard Fund." Commercial exchange rates, therefore, could not rise or fall appreciably beyond these respective limits, and between them the Government had nothing to do with exchange. That was the exclusive field of the banks.

ADVANTAGES OF GOLD EXCHANGE STANDARD

The advantages of the gold exchange standard over a strict gold standard for a country like the Philippines are two-fold.

First is the advantage previously mentioned, that the gold exchange standard enables such a country to have a circulating medium of the kind best adapted to its needs. Gold coin is not well fitted to the needs of a country the great bulk of whose transactions are small. Silver and paper are much better.

The second advantage is that of economy, and this is a matter of great importance for many countries, which cannot afford the luxury of a gold coin or even of a gold bullion standard. Although possibly a larger gold reserve is needed under the gold exchange standard than would be needed under a strictly gold coin standard in a country having a large circulation of gold coin along with its fiduciary money, the net expense is not proportionately so large. This is true for several reasons: (*a*) The money of circulation is all fiduciary money, and therefore much less expensive than if a large part of it were full-weight gold coins. No gold coin and no gold bars are hoarded, and no gold reserve is maintained in the country to meet the possible demands of would-be hoarders. Conversion of local money into gold is made only through foreign drafts of which the minimum amount sold is the equivalent of a gold bar of $5 000. (*b*) Under the gold exchange standard the reserve is more effective than under the gold coin standard, being all in one reservoir (e.g., the Gold Standard Fund), where every dollar can be immediately used in time of need; whereas gold coin in circulation and gold bars in private hands are difficult to mobilize in emergencies, for the very emergency that creates the demand for the gold is likely to cause the public to cling to it more tightly. (*c*) The premiums realized by the Government on exchange ordinarily yield the reserve fund a good profit. For example, the premiums on exchange realized by the Philippine Government for the five fiscal years 1905–6 to 1910–11 were ₱1,106,768 on an average circulation of about ₱41,700,000. (*d*) Part of the reserve fund is capable of earning interest—namely, that part deposited abroad. The Philippine Government, for example, realized as high as 4 % on that part of the Gold Standard Fund kept on deposit in the United States, and its interest earnings on that part of the fund for the five years ending June 30, 1910, amounted to ₱1,437,942.

Except under unusual circumstances, the reserve fund under the gold exchange standard continually increases in amount. This is true, because (aside from the slight expenses connected with the currency administration that are usually charged to the reserve fund) money is never paid out of the fund except in return for a larger sum paid in. A demand draft on New York for $10,000 sold in Manila by the Government, when the premium was three-fourths of 1 %, reduced the fund in New York by $10,000, but increased the fund in Manila by ₱20,150; and, vice versa, a New York draft on the Fund in Manila for ₱20,000 decreased the fund in Manila by ₱20,000, but increased the Fund in New York by $10,075. When the Fund is temporarily reduced for the purchase of silver (or nickel or copper) to meet the need of new coinage, the Fund is later increased by the amount withdrawn and by the net seigniorage profit on the coinage in addition.*

The only times when the reserve fund is materially depleted in amount (aside from remotely possible losses by theft or by failure of the depository bank or banks) are times of extreme business depression, when, because of a great decline in business, the currency needs of the country may fall off decidedly and remain far below normal for a considerable period of time. Under such contingencies, the silver peso reserve in Manila (continuing our illustration) might be greatly increased as a result of continually heavy purchases in Manila of drafts on New York, and the gold part of the Fund in New York might be correspondingly depleted by the payment of these drafts. If the depression were so severe that the movement was not checked by the usual forces before the danger-point were reached, the gold fund in New York could be replenished through the forward sale in New York by cable from Manila of a few million ounces of silver to be obtained by the Government through the breaking up of the excess pesos held in the peso part of the Fund in Manila. The gold proceeds of this sale of silver bullion would be deposited to the credit of the Fund in New York. Here the Fund would suffer a loss of the difference between the nominal or money value of the pesos broken up and sold and the price obtained for the silver bullion, to which would be added the expenses of the transaction. It would be the opposite of a seigniorage profit—a sort of negative seigniorage. Such a measure would be adopted only as a last resort, and the need of doing so would be evidence that for existing trade needs too many pesos had been coined.

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* Losses incurred on the recoinage of worn coins are usually chargeable to the reserve fund, but this item is small when all the coins are fiduciary, as they usually are in gold exchange standard countries.

Under ordinary circumstances the depletion of the gold fund in New York would be checked before it had gone far by forces analogous to those that prevent an undue exportation of gold from a gold coin or gold bullion standard country. They are notably: (1) a tightening of the money market in Manila through the withdrawal from active circulation and from bank reserves of the large quantities of pesos physically deposited in the Gold Standard Fund in the vaults in Manila; (2) the stimulus given to merchandise exports by the prevailing high exchange rates; and (3) the retardation of merchandise imports caused by the same high rates.

THE QUALIFIED GOLD EXCHANGE STANDARD

A qualified form of the gold exchange standard which assumed great importance after the war is one that is administered not by the Government but by the central bank. In this form the principal money of the country consists of notes issued by the central bank, and the only central reserve used for maintaining the gold parity of the currency is that of the central bank, a large part of which is kept in foreign financial centres, such as New York and London, in the form of bank deposits and of highly liquid, short-time paper, such, for example, as bankers' acceptances. Under this system the central bank obligates itself to sell drafts on, say, New York, at all times on demand, at the gold-export point, and provides for the sale of drafts by its agent in, say, New York, on the central bank at home, at all times on demand at the gold-import point. These gold points mark the limits, as in the gold coin standard, beyond which exchange is not permitted to go. Between these points the central bank, like any other bank, may, of course, conduct an ordinary foreign exchange business.

Under this system, in order to assure a contraction of the currency when heavy sales of drafts at the gold-export point are depleting the gold reserves held abroad, the law usually provides that the central bank must pay a tax which increases progressively as its percentage of gold reserves declines below a certain point, and that the equivalent of this tax must be added to the bank's discount rates. These requirements tend to enforce a contraction of the currency when the currency is relatively redundant, and when, under the gold coin or gold bullion standard, currency contraction would be effected by gold exports. Under such requirements the central bank can expand its credit and increase its note circulation when its reserves are low and declining only at a progressively increasing expense to the borrowers and at a progressively declining rate of profit to itself.

The following provision of the law of 1931 creating the Central Reserve Bank of Peru—a law which has since been modified in certain particulars under the influence of the economic depression—will serve as a typical illustration of this form of the qualified gold exchange standard.

The Central Reserve Bank of Peru has a monopoly of the note issue privilege in Peru, and was required by law to maintain the parity of its notes with gold at the rate of the equivalent of 28 cents United States gold to the monetary unit, the *sol*. For this purpose the Bank was required to maintain "a normal legal minimum reserve of 50 % of its notes outstanding and deposits combined." Aside from a small amount of silver coin which might be included, the reserve must consist of "any or all of the following items" in such proportions as the Board of Directors may decide: (1) gold bars and gold coin in Peru, and "earmarked" gold held in banks of high standing situated abroad; (2) deposits payable in gold or its equivalent on demand in banks of high standing in New York and/or London; (3) bankers' acceptances of high standing maturing in not more than ninety days from the date of acquisition by the Central Reserve Bank of Peru, which enjoy a ready market in New York and/or London. (Not more than two-fifths of the normal legal minimum reserve may be invested in this form.)

The notes of the Bank are redeemable on demand at the Bank's head office in one or both of the following forms, the particular form or the proportion of the two forms in which redemption is made being at the option of the Bank: (1) gold bars at parity; (2) demand drafts on New York or London, payable in gold or the equivalent. "On said drafts the Bank may charge premia above the gold parity of the *sol* with the United States gold dollar and the pound sterling respectively, which shall not exceed the amount necessary to cover all expenses involved in shipping gold bars in substantial quantities from Lima to New York or London, as the case may be."

The law also requires that "to avoid appreciation in the gold value of the Peruvian monetary unit, the Central Reserve Bank of Peru shall pay out its own notes on demand in exchange for: (*a*) gold bars of approximately 100 % fineness" and foreign gold coins at their gold parity weight in pure gold; and (*b*) against foreign gold credit paid to the account of the Central Reserve Bank's legal reserves in the banks of New York and London in which the Bank maintains such reserve accounts: "Provided, that, for each payment of notes in Lima against the aforementioned deposits abroad of gold and its equivalent, the Bank may charge a premium sufficient to cover the expenses that would be involved in shipping gold bars in substantial quantities from said foreign cities to Lima."

The Peruvian Law provides a tax on reserve deficiencies, the rate of which increases progressively as the reserve declines below the normal legal minimum of 50 %. Whenever this reserve deficiency tax is imposed, the law provides that there shall be added to the respective rediscount rates, discount rates, and interest rates charged by the Bank, in addition to whatever increase in such rates may be necessary to raise the lowest rate to 7 % per annum, a percentage equal to at least one-half of the percentage rate of the tax imposed upon the reserve deficiency. This tax and these enforced advances in the Bank's discount rates put progressive brakes upon currency and credit inflation.

The gold exchange standard, as we have noted, possesses certain real advantages over the gold coin or the gold bullion standard. It is less expensive, in that it avoids tying up in central bank vaults or Government vaults of proportionately such large quantities of gold that do not yield a return in interest and in that it makes difficult the obtaining of gold for hoarding, which so often involves an economic waste. In economizing the use of gold, the gold exchange standard not only serves the country which adopts it, but may well render an international public service in the future, if we should reach a time, as many fear, when the world's gold production will prove inadequate for the world's monetary needs. For many countries, particularly those in which revolutionary upheavals are likely to be frequent, the gold reserve of the central bank would actually be safer if kept abroad than it would be if kept in the central bank's own vault at home.

DISADVANTAGES OF THE GOLD EXCHANGE STANDARD

Despite these obvious advantages, the gold exchange standard has, since the economic crisis of 1929, lost much of the prestige which it formerly enjoyed. The principal criticisms that may be raised against it are the following:

(1) In effecting an economy in the use of gold, critics claim that it often carries too far the pyramiding of gold reserves. Take, for example, a small country on the gold exchange standard in which the normal legal minimum gold reserve of the central bank against its notes and deposits is 40 % and in which commercial banks are required to maintain in the central bank deposited reserves of 15 % against their own demand deposits. Assume that the demand deposits of the commercial banks of the country are $100 million and that the bank-notes outstanding issued by the central bank are likewise $100 million.

If the central bank were required to hold its entire legal gold reserve in its own vaults, it would need $40 million in gold reserve for its notes and $6 million (40 % of $15 million) for its deposits, a total of $46 million, or an average gold reserve against central bank notes outstanding and demand deposits of commercial banks combined of 23 %.

Assume that, under the gold exchange standard, the central bank is permitted to keep all of its own normal legal minimum reserve in a New York City national bank and that it actually does so. The $40 million reserve required against the notes would be deposited in the New York City bank, which, under American law, would hold against this deposit a 13 % reserve, or $5.2 million; but this reserve would be in the form of a deposit in the New York Federal Reserve Bank, against which the New York Federal Reserve Bank would be required by law to hold a reserve of 35 % in lawful money, which we will assume to be gold, as in practice it would be largely; 35 % of $5,200,000 is $1,820,000. The actual gold reserve "held somewhere" against the $100 million of bank-notes outstanding in the country having the gold exchange standard would therefore be 1·82 %, as contrasted with the 40 % required under the gold coin or gold bullion standard.

As regards deposits, the central bank in the gold exchange standard country would deposit its $6 million gold reserve in the New York City National Bank, which would, in turn, maintain a 13 % reserve against this deposit, or $780,000. This reserve, however, would be in the form of a demand deposit in the New York Federal Reserve Bank, against which that Bank would be required to hold a reserve of 35 %, or of $273,000. The amount of gold reserve "held somewhere," therefore, against the $100 million of deposits in the commercial banks of the gold exchange standard country would be $273,000, as contrasted with $6 million under the gold coin or gold bullion standard. The decline would have been from 6 % under the gold coin or gold bullion standard to less than 0·3 % under the gold exchange standard.

Combining note liabilities of the central bank and deposit liabilities of the commercial banks, the percentages of gold reserve actually held somewhere under the gold coin or gold bullion standard would have been 23, and under the gold exchange standard 1.0465, or nearly 22 times as large under the gold coin or gold bullion standard as under the gold exchange standard.

Of course, this estimate needs certain qualifications to give an accurate picture. The commercial banks of the gold exchange standard country would in practice keep some till money in addition to their deposited legal reserve and the central bank would likewise in practice keep some till money at home (in addition to its available unissued bank-notes) and would normally keep a deposited reserve abroad, somewhat in excess of the 40 % legal requirement. Furthermore, the New York City Bank would normally hold a reserve somewhat above the legal requirement, and the New York Federal Reserve Bank would, in turn, usually have a gold reserve very substantially above the normal legal minimum. It should be remembered, however, that, under the gold coin or gold bullion standard, some excess reserve likewise would also be kept. The illustration is a fairly representative one, and, when all necessary qualifications are made, probably does not much exaggerate the greater degree of pyramiding which is done under the gold exchange standard than under the gold coin or the gold bullion standard. In some qualified gold exchange standard countries the law permits only part of the legal gold reserve of the central bank to be held on deposit abroad, and requires part—sometimes a major part—to be maintained in physical gold at home or in earmarked gold abroad. In such countries the amount of gold legally required to support a given volume of note and deposit liabilities is substantially increased over that required in countries where all the legal reserve may be a deposited reserve.

(2) The second objection to the gold exchange standard is that it does not automatically function so effectively, namely, set up as efficient a set of forces of checks and balances in "the foreign country" as does the gold coin or the gold bullion standard. In the home country the gold exchange standard may be as automatic and as efficient in its functioning as the gold coin or gold bullion standard, but not in the foreign country. Under the gold coin or gold bullion standard, one country exports gold at its gold-export point and another country receives the gold at its gold-import point. The currency is normally contracted in the country exporting the gold and expanded in the country importing it. Under the gold exchange standard the currency is normally contracted in the country selling the drafts on its gold standard reserve located abroad, but is not expanded in the country in which the reserves are held. Furthermore, when exchange goes to the gold-import point, the currency of the gold exchange standard country is normally expanded under the gold exchange standard as effectively as it would be under the gold coin or gold bullion standard, but the currency of the foreign country in which the bank is located that holds the gold reserve is not decreased when the bank sells a gold exchange standard draft on the gold exchange standard country. In the foreign country these operations usually mean merely the debiting of one bank deposit account and the crediting of another.

In further elucidation of the difficulty, we may quote from the Report of the Gold Delegation of the Financial Committee of the League of Nations:*

The gold exchange standard system has

> somewhat complicated the mechanism of the international system by distorting, in certain cases, the reciprocal effect of the transference of Central Banking reserves. . . . An export of gold from one country to another used to set in motion reverse sequences of events in the exporting and in the importing countries. If the reserve consists of foreign assets, however, such reciprocal changes need not necessarily take place at the same time. The exact effect of a transfer of the claims which such assets represent will depend on how those assets are held and between what countries the transfer takes place.
>
> Thus, if a Central Bank keeps its foreign assets in the form of a slight deposit in a foreign commercial bank in a gold centre and sells its claims on that bank to a trader who has obligations to meet in that market, conditions will be created tending to compel it to curtail credit at home. But no reciprocal con-

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* Pp. 13 and 14.

ditions will be created in the country in which the commercial bank is situated. The commercial bank may find that the only change in its position is a substitution of a domestic for a foreign depositor. Moreover, the Central Bank in this country may have remained unaware of the transaction and be deprived therefore of the means of obtaining immediately information which might prove important for the conduct of its policy. If the deposit, on the other hand, had been held in the Central Bank of the country in question, the result might have been to change that Bank's foreign sight liability into a commercial bank "cash" deposit with it and thus to create conditions tending to a partial—though not equivalent—expansion of credit. In any case, it would have enabled that Central Bank to ascertain the facts on which its policy should be based.

The effects of such operations are again different if the transfer is made by the country holding foreign assets to any country other than that in which those assets are held. In such circumstances, if both parties hold assets in the same country and the transfer is made between their respective accounts, there is reciprocity of effect between them and no effect on the country in which those deposits are held. If the transfer is made by the conversion of those assets into gold and the shipment of that gold to the country to which payment is due, there is a triple influence which may bear no relationship to the actual balance of payments between the country in which the deposit is held and any other.

(3) A third objection—or more correctly, a group of objections—to the gold exchange standard grows out of the fact that the gold reserves of a country are less in control of its own authorities when the reserves are deposited or otherwise invested abroad than when they are kept physically in the home country. This fact may mean greater insecurity for the gold reserves.

The legal title to gold in a central bank's own vaults resides in the bank and the gold itself is in the bank's own control. The legal title to the bank's gold reserves that are deposited in a foreign bank resides in that foreign bank, and the home central bank is merely a creditor of the foreign bank for the amount deposited on deposit account. The foreign bank invests the funds and usually invests them in the country where it is located. If the foreign bank fails, the home central bank merely participates in the ultimate distribution of the assets *pro rata* like any other creditor. Furthermore, the foreign deposit is payable in the money of the country in which the depository bank is located. If that country's currency should depreciate, the depositing central bank would lose. In this way many gold exchange standard countries suffered severely —the losses amounting to tens of millions of dollars—when England suspended gold payments in September 1931, and their deposited gold reserves suddenly ceased to be payable in gold and became payable in a greatly depreciated paper pound. This experience was the greatest shock which the gold exchange standard has ever received.

Moreover, the deposits in any country representing the reserves of foreign central banks are likely to be highly volatile deposits. Individually, the amounts of the deposits are usually large, and such deposits are usually concentrated in a few markets, notably New York and London. Most of them, furthermore, are demand deposits. Heavy pressure for gold redemption (namely, purchase of gold standard reserve drafts) often arises suddenly, perhaps from an economic or political crisis, so that the heavy calls upon gold reserves cannot always be anticipated by the depository banks. If the crisis should be international in character, the strain upon gold reserves deposited in a world money market would be still further aggravated. It was this sort of drain on London that was the immediate cause of the breakdown of the gold standard in England in the autumn of 1931. Two generations ago, the eminent British economist, Walter Bagehot, after saying that recently London had become the sole great settling-house of exchange transactions in Europe, added, "and we may reasonably presume that in proportion as we augment the deposits of cash by foreigners in London, we augment both the chances and the disasters of a run upon England."

Another phase of the problem is the claim that funds in a foreign market will always be administered with primary reference to the needs of that market rather than to the needs of the country which deposited the funds. These needs are sometimes in conflict. India, for example, with its qualified gold exchange standard, normally has very large reserve funds in the London market. The immediate interest of the London market as to discount rates, sale of Council Bills, and other financial policies may be very different on occasion than those of India in relation to India's enormous reserves. This has been the source of vigorous criticisms on many occasions by Indian economists and financiers. For example, S. V. Doraiswami a few years ago said:*

> The three hundred and fifteen millions of Indians do not exist for the benefit of London bankers. . . . This manipulation of India's exchange and currency, not for the benefit of India, but solely for the benefit of London joint-stock bankers, exchange bankers and bullion dealers, should no longer be tolerated.

Then there is the matter of political risk. A country naturally hesitates before locating its gold reserve—the foundation-stone of its currency and credit system—in a foreign country. What would happen, it asks, if the country in which our gold reserve is located should go to war with us? Would it not at once seize our gold reserve and bring down in a crash the currency and credit structure built upon it? The experiences of the Great War are not very reassuring on this point. It is a point that has been frequently stressed in discussions of the gold exchange standard for China. Of course, this danger does not apply in the case of a colony or dependency which keeps its reserve in the mother country, and it has little weight in cases where danger of war between the two countries is remote.

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* *Indian Finance, Currency and Banking*, pp. 36–37.

FUTURE OF THE GOLD EXCHANGE STANDARD

The gold exchange standard has certain very decided merits, of which economy is the most important. It also, as we have just seen, has certain real shortcomings. Its future is in doubt. Probably, however, it will continue to be used extensively by smaller states and by colonies and dependencies, and will be to a large extent given up by the great nations of Europe. The practice followed by many countries on the qualified gold exchange standard—for example, Germany, Poland, and Colombia (from 1923 to 1930)—of requiring a certain proportion of the gold reserve to be kept physically in the form of gold will probably be increasingly followed in the future. It is, moreover, desirable that the peculiarly volatile character of deposited foreign gold standard reserves be recognized both by law and by banking practice. Banks holding such deposited reserves should be required to maintain against them larger percentages of reserves than they are required to hold against ordinary domestic deposits. As in the past, these reserves will be deposited chiefly in commercial banks, rather than in the central bank, because of the all-important fact that commercial banks can pay interest on such deposits, while it is generally considered unsound banking policy for a central bank to pay such interest.

CAPITALISTIC PRODUCTION, TIME AND THE RATE OF RETURN

FRANK H. KNIGHT, *University of Chicago*

I. INTRODUCTORY

THE theory that capital reflects and quantitatively corresponds to the length of time over which certain "factors of production" (called "primary") are applied to their ultimate use—by being employed to create capital instruments as "secondary" factors—may be said to have been originated by Jevons, popularized in a crude form by Böhm-Bawerk, and refined by Wicksell. It is of course widely held, notably as the basis of the theory of the business cycle and its control promulgated by Professor Hayek, as well as numerous other cycle theorists. On examination, the theory is found to involve a number of fatal confusions. At least, it can be defended as true only under assumed conditions so divergent from the basic facts of modern economic life that there is a strong presumption against employing it fruitfully as a tool of analysis.

Historically, such a theory grows naturally out of the "classical" conception of production and of the role of capital in production, which may be sketched as follows: Production is carried on by labour, which is supported by capital and applied to land. A fixed amount of capital supports a fixed amount of labour.* Each year labour uses up the capital produced in the previous year, and reproduces it to support production the following year. Capital is thought of as food, or food and raw materials, originating in agriculture. Labour which does not reproduce the capital it consumes is "unproductive." This theory carried with it the wage-fund doctrine, which in its simplest form assumed that the entire income-less-rent of society is paid out each year to labour, thus making capital, annual income (apart from rent), and the wages-fund virtually identical, capital's share in income being regarded as negligible. More developed conceptions of the fund, straining at consistency with a subsistence theory of wages and a residuum for capital, cannot be considered here.

The filiation from its forerunner of the theory that capital reflects the length of the production process is not evident in Jevons's statement, but is very clear in Böhm-Bawerk's defence against the accusation of being a wage-fund theorist.* What Jevons and Böhm-Bawerk do to the Ricardo–Mill theory of distribution and of capital is essentially to drop the assumption of a natural annual cycle in production and the corresponding fixity of proportions between labour and capital, and to make the quantity of capital (for a given quantity of labour and land) a linear function of a variable production period. Under the original conception of the production process, this is logical. *If* it were true that labour produced capital, which in turn supported labour (or supported and "assisted" it), it *would* take twice as much capital to support a two-year production cycle as one of a single year—*a fixed scale of living for labourers being still assumed!* Then, *if* it were a general technological principle that the longer production cycle gave a greater yield, in accord with some functional relation, a rate of return on capital could be deduced from the relationship.

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* See especially Ricardo's explicit statement, Gonner ed., p. 59.

That this is a false view of the nature of the co-operation between labour and capital and that such a theory of capital and its return is consequently fallacious, it is the main task of this paper to explain, in the detail possible in its compass. The chief theses are two: First, the relation in production between capital (consisting of non-human productive agencies) and labour is a strictly mutual, co-ordinate, and simultaneous relation; neither "factor" is in any way "primary" or prior to the other. Second, there is no productive cycle, or length of production period, which has determinate length or meaning. In the "stationary" view, the productive equipment of society, material and human, yields want-satisfying services which are consumed as they are rendered. In the historical view the creation of the productive system itself, including labourers as well as capital instruments, which in turn include "land," has been a cumulative, uninterrupted process of the hen-and-egg sort, going back as far as we care to trace it; in this process, moreover, all productive instruments existing at any time, including labourers, have participated on a joint co-operative basis.

II. THE TIME DIMENSION IN THE BASIC ECONOMIC CONCEPTS

Since there are no terms of unambiguous meaning available for exposition in economic theory, the main argument must be approached by way of definitions. It is particularly important to have explicit and reasonably appropriate terms for the main steps or stages in the economic process, and in connection with them to avoid some confusions regarding the time dimension. (1) To begin with, the conception of economic behaviour includes two phases or stages, the maximum utilization of a given environment and activity leading to improvement in the environment. We shall use the expression "stationary economy" to refer to the former. Under the second are to be included only acts which come under the notion of economy in the broader sense of maximizing return from given resources through correct allocation among competing alternatives of use, in contrast with changes which have to be treated "historically." (Economy in the different sense of correct technique in manipulating resources, which excludes error and uncertainty, is taken for granted.) (2) The end of all economic activity, which in a mechanical theory is treated as its cause, is *want-satisfaction*, a change of state in an economic subject, produced and maintained over *some period of time*, by (3) some *direct economic agency*, either a person or thing. The use of a direct agency is called (4) *consumption* from the standpoint of the process, and (5) a *service*, with reference to the "object," or what is consumed.

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* See *Positive Theory*, final chapter.

(6, 7, 8) *Wealth*, *Value*, and *Income*.—Consumption and service have a time dimension; each is a rate. Different kinds of service are reduced to a common denominator in harmony with the prices at any time by the expenditure choices of each consumer. But the comparisons made privately by individuals become objectified, so that it is possible to speak of measurement only through purchase and sale in a market. Purchase and sale are almost never continuous, but rather take place as "events" at a point in time. What enters into exchange and gets measured is, therefore, not a flow as such, but an absolute quantity, in fact the "value" of a right to some stream of service of some magnitude *over some time period*. Thus arises the conception of *wealth*, the distinctive attribute of which is *value*. The primary economic reality is consumption income; but since wealth is what is generally measured, we must have a name for the stream of service defined in terms of wealth, by reinversion, as it were. The resulting conception is *consumption-income*, a stream of exchange value, which must therefore be defined dimensionally as wealth divided by time, or, accurately, the derivative of a wealth magnitude with respect to time. (A broader conception of income will be noticed later.)

The basic magnitudes of economic theory stand in the same relationship as those of current-electricity or of light; the primary magnitude is a flow or intensity, with a time dimension; quantity is a derived concept. A quantity of current-electricity has meaning only as current-times-time, or integral of current over a time interval, i.e. ampere-hours. A quantity of light or illumination can be conceived only as a certain intensity maintained for a certain time, to be expressed in candle-power-hours. There is no such "thing" as electricity or illumination "existing" at a moment of time as there is such a thing as water, which exists whether it flows or not. So in economics, wealth, to begin with, has intrinsically the two dimensions of income and time. "Logically" it is immaterial whether the relation is stated in this way or whether income is given the dimensions of quantity, i.e. wealth and time, but it is vital to understand the "real" relationship. So much is true, "to begin with"; wealth is income-times-time, or an integral of income over time. But in economics the relation is further enormously complicated by the fact that time enters in another way, the summation being relative to the point in time at which, or from the standpoint of which, it is made. Only future income, of course, can have value at any time, and the amount of value depends on the distance in the future of each separate moment of the income-stream being valued. Thus the process of integrating is subsumed in a more elaborate relation called *discounting*, or in the common case, "capitalization." The nature of the operation and the underlying causal relations will be discussed later (Part III).

Notes on Wealth and Income.—(*a*) The most familiar mode of occurrence of wealth is in the shape of some object capable of rendering service in some form or forms; but it may consist of purely abstract claims. (*b*) It may be argued that wealth is desired for mere possession and not for the sake of an "income." But possession itself is dimensionally a form of income, even if no other use is made of the wealth. Wealth is "kept" and not merely "obtained." A real difficulty for theory is the necessary assumption that it is kept for some known reason and not as a provision against contingencies, or as a speculative plaything. (*c*) The period over which an object yields consumption income is not necessarily that of its own existence as an object. Much confusion has undoubtedly arisen from taking the eating of food as the type of consumption. Even if the eating be thought of as instantaneous, the enjoyment clearly is not; theoretically, it is a mechanical accident that we eat intermittently rather than continuously. And most direct economic goods have considerable durability, and render their services over a corresponding period. (*d*) In the case of an "indirect" agency—one used in manufacture, or otherwise, to make other goods—the entire stream of consumption service or income which gives it value may accrue during an interval, long or short, far remote from that of the life, long or short, of the agency itself. (*e*) Every agency, direct and indirect alike, is used jointly with an indefinite number of other agencies, in a relation of co-operation more or less important. Consequently the service of any one must be separated from that of others by "imputation." (*f*) It is convenient to have a unit of value, which we may call the *cent*. But it must be understood as a unit of value merely, abstracting from other properties of an exchange medium. Use as a medium, or as a store of value, causes theoretical disturbances; in the absence of uncertainty, people could largely avoid the interest expense of possessing money, and its velocity of circulation would rise indefinitely.

Notes on Quantification.—(*a*) Different wants and different kinds of services satisfying wants form two identical lists; economic wants are wants "for" the services bought to satisfy them, being known and measured only by the latter. (*b*) It will be seen that there are two systems of quantification, individual comparisons which bring each individual's estimate of goods and services into accord with prices and exchanges in the market. Competition is assumed to set such prices as lead to maximum mutual advantage in economic activity for all parties to the system. At equilibrium, equal exchange values (all cent's-worths) represent equal "want-satisfying power" to each individual taken separately; but this *does not* imply equality of anything except exchange value as such as between different individuals. (*c*) The quantification of "costs of production," involving relations between money costs and other magnitudes, does not call for discussion here.

(9) The chief centre of confusion in the treatment of economic concepts, particularly as regards the time dimension, is the notion of *production*. The root of the difficulty is in the distinction between the stationary economy and historical growth, which appears as a confusion between two meanings of production, the rendering of consumption services and the creation of agencies for rendering such services. The conventional treatment of production (in the literature in English) derives from the classical school, through Mill, with more or less modification. Mill began by considering production as the effect of labour, went on to insist that what is produced is "utility," and distinguished three kinds of utility. The first kind is embodied in (non-human) objects, the second in persons, and the third is not embodied at all, but consists "merely" in the rendering of a service (by a person, of course). Utilities embodied in things are of the now familiar three kinds, "form," "place," and "time" utilities. Mill concluded by defining production as the creation (by labour) of an *increase* in wealth.* The confusions here are numerous and involved. In the first place it becomes impossible to maintain any consistent relation between production and consumption, but that point must be passed over for the moment. (Mill nowhere discusses consumption, except to separate "productive" from "unproductive" consumption, in the sense of his definition of production.)

More fundamentally, there is confusion among three *bases* of distinction between kinds or conceptions of production, namely: (*a*) what is produced, (*b*) the agency which produces, and (*c*) the process itself. Regarding the last, it need only be remarked that the distinction between form, place, and time utility properly has to do with the manner of producing and not with what is produced. Under (*a*) we encounter the central fallacy, hinging on the time dimension. Production as rendering service ("utility") must not be confused with maintenance, replacement, or increase of wealth, which consists of agencies for rendering future service. The notion of production as "producing" productive agencies runs into the second base of confusion named, and necessitates glancing at the conventional classification of "factors of production." (It is to be remembered, however, that these are treated in the literature, not as types of agency rendering consumption service but as themselves producing "wealth.")

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* Book I, ch. iii, sec. 4.

The "tripartite" classification of "factors" results from separating human beings from other agencies and then dividing non-human agencies into two classes, those given by nature and those artificially created. Kinds of entity are here confused with elements or properties. It will be true of any concrete specimen, whether human or non-human, that some of the qualities which give it value are "natural," others "artificial," in the loose, common-sense use of terms. This distinction must be more fully noticed later. Again, human beings are certainly produced in the economic process, and at a cost. But it is no doubt advisable, on human and institutional grounds, to make a general distinction between them and non-human agencies. In a free society human beings are not exchanged, hence get no definite value, and, partly in consequence of this fact, are not produced under "economic" conditions. In any case, the classical conception of production naturally was not applied to things assumed to have been given by nature, nor to human beings.

The fundamental confusion is that between production as the rendering of consumption service (at some *rate*) and the creation of some (absolute *quantity* of) new capacity to render such service. Some modern writers who follow Mill's conception of production define consumption to correspond with it, i.e. as the "destruction of utilities" (in wealth). Some add the rendering of personal services to the forms of production, or forms of utilities produced, falling into the main confusion in grouping together magnitudes of different dimensions. It would seem that the best way to avoid such error would be to keep rigidly to the conception of consumption as the enjoyment of service, and that of production as the rendering of consumption service, regardless, in both cases, of the type of agency involved.

But it is also necessary to have a concept which covers both the production of current consumption services (consumption income) and the creation of new wealth. (Maintenance of existing wealth is included in the production of consumption income, since we are not in this paper concerned with the problems of a retrograde society.) This necessity arises from the fact that while wealth essentially means, or "is," discounted future consumption service, the realization of this service is not an automatic occurrence but an economic problem. The two activities of creating wealth and making it yield income are frequently carried on by different persons or groups, co-ordinated through pecuniary relations. In consequence, the two activities or processes have to be separately dealt with in the accounting. An increase in wealth is "income" in the accountancy sense for the interval in which it occurs, even though no final value has been realized. The use of the word "income" in this sense is firmly established, and error is to be avoided only by the use of modifiers or context making the meaning clear. It may be referred to as money incomes. It represents power to consume, which may be exercised currently, or used to create wealth, i.e. "invested." When referred to its source instead of its recipient, "income" is synonymous with other terms, such as "yield," and "rental," and further ambiguities arise. In using these it is necessary to make it clear what they include, if anything, above *net*, *perpetual income*, after full provision for maintenance and replacement of the source, as well as various operating expenses.

Notes on Consumption.—(*a*) Surely the case against treating consumption as consumption of wealth is clear. Such usage makes no provision for personal services—unless human beings are both classed as wealth and held to be consumed, "used up," in proportion to the services they render. More important is the non-correspondence between using and using up in relation to wealth itself. Only in the case of an object "consumed" instantly could there be identity between the two. Most agencies have a service life more or less independent of the rate of use, and under the most economical rate of use a life anywhere from zero to infinity. At the latter extreme, of course, consuming the service has no connection whatever with using up the agency. In general, the relationship is a phase of our central problem, the quantitative relation between wealth and consumption income, to which we immediately turn. (*b*) Conceptually there is an important distinction between consumption for want-satisfaction and maintenance or increase of the productive capacity of the consumer or dependent persons; but the obvious impossibility of making a quantitative separation forces inclusion in consumption of all expenditure of service capacity upon human beings. And for reasons similar to those just indicated in connection with production, investment must sometimes be included in consumption.

III. CAPITAL AND THE RATE OF RETURN

Capital (tenth in our list) may be defined briefly as identical with wealth, but thought of in relation to the consumption stream of which it is the capitalized value, not simply as a quantity of exchange value. The first principle of "capitalization" is that of a uniform rate of income, through time, for every wealth item, under competitive conditions. Any item which represents an income lower than that of any other item of equal value will be exchanged for the latter, and differences eliminated.

The second basic fact is the open opportunity to invest (immediately, money; finally, productive services), plus the further condition that much net investment is actually being made, all the time, in every competitive economy of which we have any historical knowledge (and the present paper relates only to such a situation). In this world, that is to say, the same agencies (in considerable part, which is all the argument requires) which yield consumption services can be used, and in large measure constantly are used, instead to create capacity to yield such services, *in greater quantity* (rate multiplied by time or integral over time), but of course at a later date. Investment of money income means that consumption income, of some magnitude, for some period of time, is sacrificed, and "wealth" obtained instead. Two questions are raised: (*a*) How much wealth is obtained for a given investment of money income (sacrifice of consumption income)? and (*b*) How much wealth represents a given future (money) income? But the answer to the first question answers the second also.

The third fact is that under such conditions, any time segment of (money) income due at any future interval is economically equivalent to a *uniform*, *perpetual* income, beginning the moment the decision is made to convert the one into the other. The owner of such a prospective income can extend it back to the present by borrowing from the stream of new saving of the system as a whole, and can extend it beyond its original terminus into the future without limit by investment, with corresponding reduction in its volume over the original interval. Moreover, in a society in which net accretions to wealth through investment are being made, every income from wealth *is* in essence perpetual. If any individual who has made an investment decides to "eat it up," no real inverse conversion of income into wealth is involved, but only a reduction of the net conversion of income into wealth, coming out of the investment being made by others.

Using the concept of a uniform, perpetual income, it is a simple matter to derive the rate of return, which is of course the rate of "interest" where loans of money are in question. Assume an individual in possession of such an income, of any size, *n* units per year. Let him decide at a certain moment to "abstain" from consumption and invest his income for exactly one year, and at the end of the year to begin again to consume, with his income enlarged in a certain ratio by the investment. *This ratio is the rate of interest per annum.* For the value of a perpetual income, the amount of wealth it represents will be in proportion to its size; hence the ratio by which the income can, under existing technical conditions, be increased by investing instead of consuming is the ratio by which wealth can be increased by being allowed to accumulate, and this is the ordinary definition of interest. Analytically, the rate is the slope of the curve showing the growth through time of an income being invested instead of consumed, plotted on a logarithmic or ratio scale. In a social system in which income can be and is invested, the rate at which income *will* be discounted is the rate at which it *can* be accumulated under existing technical conditions of investment.

Notes on the Interest Rate.—(*a*) The equality of the rate of discount to the rate of accumulation may be used to derive the rate in another way. Any money income (a uniform rate in time) is accumulated algebraically for any period of construction at an unknown rate of return, and the future income which the resulting capital instruments will yield is discounted at the same unknown rate back to the same point in time; the two expressions are equated and the equation solved for the rate. The algebraic procedure may either take the anticipated income-segment as liquidated in a finite period or convert it into a uniform perpetual income, by deducting an adequate depreciation charge, with the same result. The expressions are mutually convertible by a few steps of simple algebra. But, as noted, it is the perpetual income which expresses the facts, in a society where there is growth, and where no liquidation of the system as a whole is anticipated.

(*b*) It does not matter whether the individual in saving and investing expects his investment to be permanent or to last a thousand years or a day; so long as he counts on being able to realize by selling, and so long as the society forming the capital market actually brings forth new net savings to absorb any conversion of wealth into income, all investments will be made on the basis of converting income for a limited period into perpetual income.

(*c*) Interest is of course identical with the rent on capital goods, less perpetual maintenance; the whole problem of the rate is that of the valuation of capital goods.

(*d*) The rate of interest is essentially "determined" by "cost of production" in the only sense in which cost is ever said to determine price, i.e. "alternative cost." The resources which would yield a certain consumption income are used instead, for a certain interval, to yield wealth, which in turn will yield and represent a certain perpetual income. The sale value of the capital goods is determined by this cost of production, which itself includes interest, so that it is necessary to set up an equation with the rate in all the terms and solve for the rate as the unknown, if the relations are to be correctly expressed. It should go without saying that the value of a capital good already existing, when conditions have changed or the original investment was not made correctly, is the cost of producing an equivalent item, the least costly item which will yield the same net perpetual income from the moment. The physical form of the two items is not in question in any way. A competitive rate of interest assumes an investment market, in which all investments made at the same time are made at the same rate, the maximum to be had under the technical conditions obtaining. It is clear, too (recurring to "land"), that it is immaterial whether any existing item has been created at a cost equal to its value or any other cost; but it is just as evident that, under conditions of competitive economic behaviour, no valuable object will come into the possession of an individual except through his incurring a cost equal to its value. (This has nothing to do with the natural history of the object, nor with the social need for it, nor the social necessity of the cost incurred.)

Cost determines price only under the condition that supply is infinitely elastic in comparison with the demand. This holds for the case of capital, but correct statement must avoid certain pitfalls. The problem is the valuation of capital goods, i.e. of future perpetual income. The supply of capital goods is the demand for savings, and is indefinitely elastic, because capital goods are indefinitely producible at substantially constant cost. Likewise the demand for capital goods is the amount of saving, which depends on individual choices between saving and spending. The supply of savings, conceived in the only proper way, as the *rate* of flow into the investment market, in response to various rates of interest, is certainly inelastic, quite possibly inversely elastic, under some conditions, if not on the whole. Obviously there are narrow limits to the fraction of income which will be saved in response to any rate of interest, and obviously the amount (rate) of saving depends much more on social and institutional factors than on the rate of interest.

The idea of a supply curve for capital, of appreciable elasticity at a moment, involves the same confusion of dimensions stressed throughout the paper between a quantity and a rate. Saving can only be conceived of as a rate. *If* saving depends on the interest rate, and if it varies in the same direction as the latter, that means that the *rate of accumulation* of the flow of new savings into investment is a function of price. The actual supply in the market at a moment, if it has any meaning at all, is a fixed quantity, and the momentary elasticity is zero. The supply of capital itself at a moment is zero if the situation is correctly pictured as an equilibrium between rates of flow. Or the supply of capital in the market may be considered (subject to sufficient interpretation) as the entire existing social wealth. This at any instant is simply what it happens to be. No interest rate can increase or decrease it without waiting for some time to elapse (referring to actual wealth; the numerical expression, dependent on the value unit and capitalization rate, is not in point here). In either view, the elasticity of demand for savings (supply of future income) is indefinitely large in comparison with the elasticity of supply of savings (demand for future income)—given frictionless flow of savings, i.e. of productive power, into investment, i.e. capital construction.

If accumulation were to proceed at a higher rather than a lower rate, and *if* numerous "other things" did not happen which are in fact certain to happen, and which raise the demand curve for capital, then the interest rate *would* fall *more rapidly* in the course of time. At any moment it is fixed solely by the quality of investment opportunity open; this is merely to say that those who invest do so "intelligently," at the highest rate which is to be had. No change in the rate of flow of capital into the market can affect the investment possibilities instantly or, in fact, very rapidly. The crude data which are available indicate a demand curve such that a high rate of saving would be necessary to bring the rate of return down in a generation to half its level at the beginning of that generation, even under the impossible assumption that the demand curve would remain stationary. In any case, the rate could never possibly fall to zero; a zero rate would require that all commodities into which capital entered in any way were free goods. Furthermore, there is no ground for arguing that the rate ever would, or would not, come to an equilibrium at any point, so that no further net additions would be made to capital.

(*e*) Net accretions to capital involve no assertion as to changes in the total, since the unit of value and/or the interest rate may change.

Notes on Consumption Goods.—Every piece of wealth is productive, in the sense that it embodies a perpetual income at a uniform rate on the wealth quantity. The notion of consumers' goods reflects a confusion of three sets of qualities, among which there is no theoretical coincidence. But perhaps it may not give rise to error if the term is used for items which are at the same time (*a*) ordinarily owned by the user, (*b*) used directly, and (*c*) short-lived. The first quality raises a major difficulty in economic analysis, the question of how much self-service is to be included in economic production and consumption and in economic income. Ideally, the line should be drawn between items thought of in pecuniary terms by the consumer and those whose production and consumption is not so motivated. "Of course," self-service includes use of objects which one owns, as well as the personal self-service of individuals, and unpaid services of members of a family to the group.

IV. THE TIME LENGTH OF THE PRODUCTION PROCESS

We turn now to examine the question of the length of the process in the concrete. In this regard also it is without meaning. Suppose that one is figuring on a contract to produce a million units of a new product, all to be delivered on a certain day and with no prospect of further sales. We assume that the farther in the future the delivery date is set (within relevant limits) the more cheaply one can fill the order (abstracting from the possibility of prohibitive storage costs), and also that a part of the longer period would be used in making "intermediate goods." But it is an error to interpret the facts as an increase in the length of the process of producing the commodity, in the sense of the theory being criticized. Two facts upset any calculation of the length of the process, or of the increase in its length. The first is that the new equipment goods especially constructed for the job will be made with the co-operation of a very considerable part (if not ultimately all) of the capital wealth, as well as labour power, in existence when the enterprise is started.

The second fact is that even under the most extreme assumptions as to the uniqueness of the project, the liquidation of the equipment after completion of the contract will involve turning back into the production stream of society as a whole a large fraction of all the wealth-value tied up in it—and the more certainly the definite liquidation date is foreknown the larger, and not smaller, this fraction will be. The production period has no beginning and no end, unless, as already suggested, the date of the end of the world is known from the beginning, and the entire social economy prepares from the beginning for the liquidation—under which condition the rate of return would be considerably modified!

A correct theory of capital-return makes it clear that the "durability of capital goods" has "nothing to do with the case." All capital is, in a growing society, inherently immortal, and we need not speculate as to what would happen if society as a whole decided to "liquidate." The amount of wealth contained in any object or other wealth item is the capitalization of a perpetual income, the remainder of ordinary imputed income after provision for maintenance and replacement in perpetuity. If one capital item is more durable than another, the depreciation charge will be less, but that is only one dimension in capital quantity and taken alone tells us nothing. *A net addition to investment may quite well involve the substitution of less durable for more durable capital goods*, if at increased first cost the rental value of the new instruments is increased over the old in greater ratio than the annual replacement charge. As a matter of fact, there is no such thing as an average durability of capital goods. Presence of a single infinite item makes the average infinite (though short-lived items might still be replaced with long-lived); but even with strictly infinite items excluded, it is apparent that the average has no necessary relation to the total quantity of capital and hence none to the computed average turnover, found by dividing annual replacement into total capital. The total capital is defined in terms of the interest rate, and cannot be used as a datum in explaining the rate.

The situation appears somewhat paradoxical. On the one hand, the use of "more time" in capitalistic production, and its connection with the use of more intermediate goods, seems evident; on the other, it is impossible to find any actual period between activity and enjoyment of its fruits, with either the less or the more capitalistic process. In the abstract, however, such a paradox is not very profound. It is possible to add to either zero or infinity without being able to speak of a definite increase, and on examination it will be seen that it is precisely these two conceptions which have meaning as the time-length of the production process. The root of the difficulty is the contrast between the stationary economy and economic growth, between utilization of capacity and creation of capacity, emphasized throughout the argument.

In a stationary economy there is no interval between production and consumption. The rendering of service and enjoyment of service rendered are simultaneous and equal. Regardless of the amount or durability of "agencies" used in economic life, direct or indirect, the existing productive system, *functioning as an organic unit*, throws off during any short interval of time the consumption services enjoyed during that interval, and at the same time maintains itself without increase or decrease, including in maintenance provision for replacement, without interruption, of all equipment items of limited life. The human organisms, in their capacity of economic instrumentalities, are an integral part of the existing equipment of service capacity, and the statement as made applies to them as it does to non-human objects, "animal, vegetable, or mineral." (Note.—With reference to a stationary economy it is fallacious to assert that "wages are paid out of capital" —and "of course" all other service remunerations are in the same position.)

When growth by investment occurs, there are, as suggested, two possible ways of conceiving the time relations of the fact that a certain amount of productive capacity has been used over a certain interval of time to create additional capacity, instead of being used to produce income currently consumed. First view: Some part of the capacity in existence at the beginning of the growth interval, but including all kinds of agencies, indiscriminately, can be viewed as "primary," in somewhat the sense of the Jevons–Böhm-Bawerk–Wicksell theory, and can be said to be applied to the production of "secondary" instruments, which yield some increment of perpetual income stream beginning at the end of the interval. As soon as the process is finished, the new capital is indistinguishable from the old, and the distinction between primary and secondary becomes meaningless. In the act of growth, "waiting" can be said to be involved, both during the interval of construction itself and at least for such time thereafter as is required for the new capital to yield a total of consumption equal to that which was sacrificed in creating it—roughly twenty years if the interest rate is 5 %. But just as clearly there is no determinate time interval between the creation of any capital increment and the enjoyment of its product; the time is infinite. And the length of the production process with reference to conditions both before and after the interval of growth is zero.

Second view: The productive capacity in existence at the beginning of a hypothetical interval over which growth occurs may not be taken as given ("bygones for ever bygone"), but may be viewed as the intermediate "product" of antecedent economic activity, a momentary cross-section of a fund of capacity continuously expanding down through past historical time through the use of part of its energy for that purpose instead of use in production for current consumption. In this case the antecedent production process is infinite in length, unless it is assumed to have started at a finite volume miraculously or in some sort of discontinuity or transformation from a previous non-economic state. And, similarly, any new increment of wealth coming into use at any time will go on producing for ever.

In short, it is impossible to impute any unit of product, in the shape of consumption in a particular time interval, to any time-segment of productive activity if between the production and the consumption in question the creation of any intermediary agency intervenes. All that can be imputed to an increment of productive activity is an increment of perpetual income stream; and conversely, an increment of consumption bounded in time can be imputed only to an endless stream of past activity, if the creation of the capacity to produce is included in the production process.

Defining consumption and production correctly, from the stationary economy standpoint, as respectively the enjoyment and the rendering of enjoyable service, the two are equal and simultaneous. In a growing system the creation of new capacity of course yields to the party concerned during the given interval a money income indistinguishable from that obtained by the production of current consumption service. But this income is invested by him or someone else as it is produced, i.e. it is converted into another income which is inherently perpetual, unless society as a whole goes into complete or partial liquidation. The human cost of the new perpetual income is "abstinence" rather than "waiting"; it is the result of a certain rate of non-consumption over a certain interval of elapsed historical or chronological time, which interval is added to the infinite past, taken from the infinite future. In this interval, society as a whole shifts to a new basis. There is no relation, except that of the discounting process, between productive activity invested in growth during any interval and what happens in any finite interval thereafter.

There is no sense in which the use of more capital in production can be interpreted as meaning a longer production process or more time, except that the creation of more capital cannot happen instantly. The amount of time it will actually take to make a certain amount of investment, by converting consumption income into capital, depends simply on the rate of saving. It is not affected by any physical conditions surrounding investment. The form of investment may be influenced by technical facts of the relation between speed of construction and cost of construction in different lines, and it is conceivable that such facts might influence the general rate of saving. But apart from such an accident there is no connection between the amount of capital and the time required to build it. Any amount of capital may be created in any period of time, just as any amount of capital may be embodied in forms having any durability or turnover period.

It is not in point here to make applications of the theoretical conclusions reached, or to correct the cycle theory based on the erroneous doctrine criticized; but, in conclusion, certain actual or possible sources of confusion may be mentioned. (1) There is no doubt some empirical correspondence between growth of capital and its embodiment in more durable forms and also the splitting up of production into more "stages." (2) Such changes may carry with them a more inflexible specialization of capital on the whole, making redirection of production a slower process, but this is more likely to be the result of technical advance than of capital accumulation as such. (3) Growth may be associated with an increase in the construction period ("gestation" period), so that more rapid investment, absorbing more rapid saving, will involve more pushing of duplicate or parallel lines. (4) Combinations of these conditions may mean that, in connection with the growth of capital, investment becomes more speculative, with the consequence that serious maladjustments are more likely to occur and less easy to correct; but other changes in the character of production are probably more important than changes in amount or form of capital in making investment speculative. (5) It is not apparent, to the present writer, at least, that the theory of the nature of capital is involved in, or sheds light on, the question of the causality of the waves of expansion and contraction of the flow of savings into investment which constitute a major aspect of booms and depression. Of course the fact of time-lag in adjustments is a general mechanical cause of oscillations, and this fact has applications in particular lines of investment. That it applies to total investment is a result of the synchronization of diverse oscillatory tendencies; this synchronization is perhaps the basic phenomenon of the cycle affecting industry at large, and its explanation can hardly be sought elsewhere than in the currency field.

PAPER CURRENCY AND MONETARY POLICY IN SWEDEN

KARIN KOCK, *Stockholm*

TWENTY months have now passed since Sweden abandoned the gold standard in September 1931, and during this period the country has had ample experience of the difficulties which are inherent in a managed currency. The conditions under which the monetary authorities have been working have been exceedingly troublesome and difficult, and outer events have in many instances made it impossible to carry on a definite line of policy. The Swedish experiences offer, however, many points of interest, and I will therefore in the short space of this article attempt to give a brief account of the economic and financial events which caused Sweden to give up the gold standard, and of the development during the twenty months that have passed since then.

The economic factors which made it impossible for Sweden to withstand the financial pressure in the summer of 1931 can be traced back to previous years. The depression which started in the United States in 1929 did not reach Sweden until late in 1930. In spite of the growing difficulties for the export industries and the slowing down of industrial activity after the foregoing boom, the position of Sweden was then much better than in most other countries, and even in 1931 the purchasing power of the great mass of the people had hardly been reduced. This fact in connection with the heavy fall in import prices had far-reaching effects on the foreign trade.

Imports into Sweden consist to a great extent of commodities that were particularly exposed to the heavy fall in world prices which started in 1929, and on the Swedish market imported goods consequently became subject to greater price reductions than other goods. From December 1929 to August 1931 import prices were thus reduced by 33 %, while export prices fell only 20 % and commodity prices in general 19 %. This change in relative prices did not fail to influence the demand, and, with purchasing power well maintained, imports remained on a relatively high level. Exports, on the other hand, were diminishing more rapidly, because of the industrial depression abroad. In 1931 the decrease in exports assumed serious proportions. In the first eight months of the year it reached such high figures in comparison with 1930, as 55 % for iron ore, 39 % for timber, 10 % for pulp, 42 % for butter, etc. The fact that exports were thus decreasing rapidly, while imports remained relatively stable, or, at least, did not fall in the same degree, explains the continuously growing surplus of imports. The deterioration of the balance of trade was, in fact, a result of the relatively favourable trade conditions prevailing in Sweden in comparison with most other countries.

In 1930 the import surplus was more than covered by the invisible items, such as freights, net income from investments abroad, etc., and, in addition, the balance of payments resulted in an excess income of Kr. 100,000,000 to be invested abroad. During the same year, however, Sweden imported securities for a net amount of not less than Kr. 337,000,000. This exportation of capital could not have been possible if there had not been a capital movement in the opposite direction, which took the form of foreign deposits in Swedish banks. It was mainly during the first six months of that year that foreign deposits were increasing, owing to a flight of capital from certain European countries. The result was an ample supply of foreign exchange, which was partly used for increasing the foreign exchange reserve of the Riksbank, but also for the financing of investments abroad. Sweden was thus borrowing on short term, but lending on long term.

In the beginning of 1931 the inflow of short term capital got a new start, and it continued unabated during the following five months. At the end of May foreign deposits in Swedish banks had reached an amount of more than Kr. 400,000,000, a considerable amount for the Swedish money market. This import of capital made possible not only the growing surplus of imported commodities but also a considerable exportation of long term capital. No reliable figures are available regarding the amount of capital thus exported. Purchases of securities from abroad were counterbalanced by corresponding sales, but, on the other hand, it is known that at this time the Kreuger concern had to make big payments abroad which were financed by Swedish banks. Previously, the concern had been able to finance its loans to foreign countries, over and above the money obtained through issues of securities, by credits obtained on foreign markets. It was only when the trade depression made it impossible for the concern to get further help or to get the old credits prolongated that they had to have recourse to Swedish banks. The first loan was obtained in February 1931 and a second loan three months later. This money was used for the purchase of foreign exchange, and these demands meant a heavy strain on the foreign balances of the country. The result was a decrease in these balances of more than Kr. 100,000,000 in spite of the inflow of foreign deposits.

The position of the Swedish foreign exchange market was thus very unstable, when the Austrian and later the German banking crisis broke out. The German "Stillhalte" agreement meant for Sweden that short term credits granted to Germany by Swedish banks to an amount of Kr. 90,000,000 became frozen. Moreover, the exchange regulations, introduced by Germany, and the growing mistrust among foreign capitalists, caused the foreign depositors to withdraw their money from the Swedish banks. During the three months June, July and August the banks therefore lost more than Kr. 300,000,000 in deposits. The banks had no difficulty, however, in meeting this demand, but the consequence was that the foreign exchange reserves of the country were depleted and the power of resisting a future crisis considerably reduced.

In the summer of 1931 the direction of the monetary capital movements turned, and from having been a capital-importing country—the import surplus having been paid by the inflow of short term money—Sweden became an exporter of capital, in spite of a deficit in the balance of trade. In ordinary times an import surplus which is balanced by an import of capital is nothing abnormal. But to pay for the imports by means of short term foreign money, which can be withdrawn at short notice, and, moreover, to use part of this money for fixed investments abroad, was to provoke future difficulties. The ample supply of money during the spring also prevented measures from being taken to adjust the trade balance, and when the discrepancy between the monetary capital movements and the movements of commodities became obvious it was too late to prevent the crisis. As might have been expected, the increase in the discount rate from 3 to 4 %, which was made in July, had no effect on the withdrawal of deposits.

It is, however, doubtful whether any increase in interest rates could have prevented the outflow of money. Even if people did not exactly anticipate a breakdown of the gold standard, they had grown suspicious of the financial development, not only in Sweden but in other countries as well, and in many instances they were forced by legal restrictions in their own country to repatriate their foreign holdings. In order to obtain an adjustment of imports and exports of commodities to the changing conditions it would have been necessary to impose high interest rates and stringent credit restrictions with a view to depressing prices on the internal market and to reducing costs of production.

Only by measures of this kind could imports have been made less profitable and the competitive power of the export industries have been fortified. A necessary condition for the success of such a policy was, however, that nothing should happen which would aggravate the situation and that Sweden could obtain a foreign loan for bridging over the transition period, which had to be rather long. There is, however, no doubt that the result could only have been obtained at heavy cost.

The declaration made by the Bank of England that the gold standard had to be suspended settled the fate of the Swedish crown. It is true that Sweden did not follow suit immediately, and that the Swedish Minister of Finance shortly afterwards made a public statement to the effect that Sweden would do everything in its power to maintain gold payments, but this must be seen in the light of the widespread belief that it would be possible to carry through successfully the loan negotiations which were going on abroad. As a measure of defence the official discount rate was raised twice from 4 to 6 %, and to prevent an importation of securities the Stock Exchange was closed already on the 21st of September. These measures were, however, palliatives and could not stop the crisis. The loan negotiations failed, and in face of the panic run on the part of foreign depositors and the growing nervousness in the country, which led to heavy withdrawals of gold from the Riksbank, the authorities had no other choice than to follow Great Britain. One week later than the Bank of England, on September 27th, the Riksbank was exempted from its obligation to redeem its notes in gold and the exportation of gold was prohibited. During this week, and chiefly during the last days of the week, the Bank had lost Kr. 70,000,000 in gold and foreign exchange, and the foreign exchange reserve was nearly exhausted. The attempt to save the gold standard had thus considerably reduced the strength of the Riksbank and weakened its position.

The suspension of gold payments was followed by a declaration by the Board of the Riksbank and the Minister of Finance regarding the monetary policy of Sweden. According to this statement, the monetary policy was to aim at maintaining, by every possible means, the *internal purchasing power of the Swedish currency*. It is true that this statement was rather vague, but it is nevertheless of interest, since it is the only instance in which a definite pronouncement has been made by a government as to the standard that was to replace the old gold standard. Other measures adopted at this time disclose the fact that what the authorities were most afraid of was an inflation of prices. Thus, the official discount rate was raised to 8 % in order to stop an anticipated speculation in commodities and foreign exchange. The Board of the Riksbank declared at the same time that this measure was meant to prove the firm intention of the Bank to maintain the internal purchasing power of the currency.

This declaration regarding the monetary policy of the Bank was, as already mentioned, very vague and could be interpreted in many ways. The first elucidation that had to be made referred to the meaning of "the internal purchasing power of the currency." Which set of prices had to be considered in regulating the value of money? This question being settled, the problem remained open whether the price level of September 1931 should be regarded as the "normal" price level which should be stabilized, or whether we should go back to some earlier date. If the developments of the past twenty months were to be taken as a proof of what the Riksbank originally intended to do, the conclusion must be drawn that the intention was to keep the cost of living stable and to preserve the level ruling in the autumn of 1931. The Bank also started immediately the compilation of an index showing the fluctuations in prices of those commodities and services which enter into the consumption of the people. From the beginning it was thus taken for granted that the standard of the monetary policy should be the purchasing power of the "krona" in the hands of the consumers. It was, in fact, at this time a tacit assumption in all discussions of this question that major fluctuations in the cost of living should be hindered by all possible means. The motive was that changes in the cost of living create social evils and, moreover, that labour conflicts ought as far as possible to be avoided. For the export industries it was essential that costs of production should not be increased, since export prices are determined by international factors and cannot be directly influenced by Sweden's internal policy.

The monetary declarations which were made during the following months show the gradual change in public opinion as to the monetary situation. In the Finance Bill introduced in the Riksdag in January 1932 the Minister of Finance repeated his statement of September 1931, but he added that this policy did not exclude certain adjustments of wholesale prices. This is the first sign that the authorities were beginning to abandon their fear of any increase in prices. Shortly afterwards, in February, the Board of the Riksbank made a pronouncement on the policy they were following. They stated that in maintaining the purchasing power of the currency they did not aim at keeping the average level of retail prices absolutely stable. A rise in prices of import and export commodities which was caused by the rise in foreign exchange rates should, in their opinion, be allowed without a corresponding decrease in the prices of home products. The opposite policy would only lead to an aggravation of the crisis, and the policy of the Riksbank should therefore aim at maintaining the prices of home products and services on a stable level, and it was expected that such a policy would hardly cause any changes worth mentioning in the cost of living in comparison with 1931. On the other hand, the Board emphasized that in order to stabilize trade conditions they had to take regard not only to the level of prices but also to other factors, such as the industrial productivity and stocks of commodities in different trades.

In leaving the gold standard Sweden thus had an opportunity of carrying on an independent policy. The fall in prices was also checked, but the upward movement which came as a first effect was soon changed into a tendency in the opposite direction. The price index of the Board of Trade rose from 107 in September to 111 in December 1931, but during the following months it showed a slightly falling tendency. Export prices moved in the same direction: after a rise from 111 to 113 they again began to fall. The rise in import prices which took place during the first months was far less than might have been expected in view of the rise in foreign exchanges. Moreover, the upward movement was soon stopped and import prices remained for the first six months practically unchanged. The price level for home products remained a little below the level of September 1931.

The conclusion to be drawn is that the fall in gold prices, which continued unabated, and the world-wide depression, which checked the demand for our export goods, in conjunction with the import restrictions imposed in certain foreign countries contributed towards counteracting the effect of the rise in the foreign exchange rates on prices in Sweden. The rise in import prices which actually took place was compensated by the fall in export prices and, to a less extent, by a fall in prices for home products. The credit policy of the Riksbank ought to have been much more liberal in order to create a rise in prices, but there were a great many circumstances that made the Board extremely cautious.

Firstly, as was stated later on by the Banking Committee of the Riksdag, it is inevitable that a policy which in the first instance aims at checking an undue inflation of prices will act as a pressure on prices.

As mentioned above, the fears of an inflation led the Riksbank to increase its discount rate to 8 % in September 1931. This abnormally high rate was maintained till the 8th of October, when a reduction of 1 % was made. By steps the official rate was further reduced to 5 %, which rate was reached on March 4, 1932. The Riksbank has been severely criticized for making these reductions too slowly—the high rate of 6 % was, in fact, maintained for four months, from October 19, 1931, to February 19, 1932—to the detriment of industry and trade. The Riksbank has, however, defended its policy by referring to the strained conditions on the foreign exchange market.

It is true that our relations with foreign countries were rather critical during the winter and the spring. The immediate effect of the decision to abandon the gold standard was a heavy rise in foreign exchanges. The sterling rate was thus raised from 14·50 to 17·85 and the dollar rate from 3·75 to 4·80. After a temporary fall a new increase took place during November. The balance of trade was still extremely unfavourable, and fears of impending import and foreign exchange restrictions made importers anxious to cover their requirements in advance. At the same time certain big payments had to be made abroad, and the consequence was a great demand for foreign exchange, while the fall in the external value of the "krona" made exporters reluctant to take home their foreign balances. The foreign exchange reserve of the Riksbank was too small to permit of any intervention on the market, and therefore, after an unsuccessful attempt to stabilize the sterling rate at 18·15, the Riksbank made an agreement with the commercial banks to the effect that credits for the purpose of financing imports which were not absolutely necessary, as well as speculative transactions in commodities and foreign exchange, should be restricted. The crisis on the foreign exchange market was thus overcome and conditions became more quiet. At the end of the year the sterling rate had fallen to 17·94 and the dollar rate to 5·29. The Riksbank, moreover, had also been able to increase its foreign balances from the minimum of Kr. 19,000,000, which was reached in November, to Kr. 49,000,000. This reserve was, however, still inadequate for meeting a new crisis.

The rise in foreign exchange rates and the credit restrictions influenced the balance of trade in a favourable direction. The surplus of imports diminished in comparison with 1931, but this improvement was not sufficient to create equilibrium, even if the invisible income items are taken into account. The deficit was partly covered by a sale of foreign securities, caused *inter alia* by the rise in the exchange rates on countries still on a gold standard. This means that during this period capital was imported through the disposal of a part of our holdings of foreign securities.

It is possible that the gradual improvement on the foreign exchange market would have led to a more liberal credit policy on the part of the Riksbank and to greater liquidity in the banking system if the collapse of the Kreuger concern, in March 1932, had not thrown Sweden into a second severe crisis.

The first effect of this event was an increase in foreign exchange rates, but a more serious result was that it impaired the liquidity of several banks and made the remaining banks extremely cautious in their credit policy and increased their desire to improve their liquidity. The strain on the money market prevented the Riksbank from following the downward course of short term interest rates which at this time took place abroad, and it is evident that this had a depressing influence on prices and trade conditions. Moreover, certain payments which had to be made for the regulation of some large foreign acceptance credits aggravated the situation on the foreign exchange market, and the sterling rate rose in April to its maximum for the year, 20·60. As in the autumn, the low reserve of the Riksbank prevented the Bank from intervening on the market. Its activities were reduced to smaller operations for adjusting minor movements in the exchange rates, and its efforts were concentrated on creating an adequate foreign exchange reserve for future requirements.

At the end of May this second crisis had also been overcome, a reduction in the official discount rate to 4½ % could be undertaken and the sterling rate was stabilized at 19·50. The early summer months constitute a border between two periods with regard to monetary conditions. During the first period the fears of an inflation and of such increases in the exchange rates as would overthrow all possibilities of controlling the market made the Riksbank over-cautious in its monetary policy, with the effect of a continuous pressure on prices. Even if certain industries could take advantage of the rise in exchange rates, which checked foreign competition, industrial conditions on the whole became worse and unemployment increased.

The hopes that the abandonment of the gold standard would make it possible for Sweden to manage internal prices and to hinder a further deterioration in trade conditions were therefore not fulfilled. Critics of the Riksbank were not wanting, and they came to the forefront in the debate on the monetary policy in the Riksdag on May 7, 1932.

In its report on the management of the Riksbank during 1931 the Banking Committee of the Riksdag had made certain comments on this policy. It was discussed whether there was any possibility of fixing the *external value* of the currency, but such a policy was found impracticable under present conditions. The country's best policy would be to regulate the *internal value* of the currency as had been done during the past months. The Committee emphasized, however, that the previous declarations were not clear enough on this point and that a more precisely defined aim was needed. It is interesting to note the change in opinion that had taken place since September 1931, and which finds expression in the statement of the Committee that it was just as important to check a further deflation as to hinder the dreaded inflation of prices. The original monetary programme did not, however, exclude a certain reflation of wholesale prices as long as the cost of living did not change considerably. It was therefore not necessary to keep the price level of home products stable, but *a moderate increase could be allowed* within the limit mentioned above. But the Committee also called attention to the fact that the monetary policy could not exclusively and schematically be governed by certain price indices, but, as the Board of the Riksbank had pointed out, other factors must be taken into account as well. The object in view was a trade improvement, and the needs of industry and trade must be one of the most important factors in forming the monetary policy. The views of the Committee on this question were approved by the Riksdag.

The Committee did not take up for discussion the problem of the means to carry out the recommendation to the Riksbank of raising prices. They only mentioned that it was a desideratum that interest rates should be as low as possible, but on the whole it was taken for granted that the normal monetary weapons of the Riksbank were sufficient for starting the upward movement. The developments during the past year have proved that this view was too optimistic.

The summer months brought about an improvement in credit conditions. The position of the banks became more liquid; their rediscounting at the Riksbank diminished gradually, and from a high point of Kr. 308,000,000 in March 1932 the amount of rediscounted bills fell to Kr. 40,000,000 one year later. Bankers' balances at the Riksbank increased rapidly, and amounted in April 1933 to the unusually high figure of Kr. 113,000,000. The official discount rate was reduced by steps from 4½ % to 3½ %, which rate has been ruling since the end of August. At the turn of the year a further adjustment of the banks' loan rates were made as a result of negotiations with the savings banks. The above-mentioned credit restrictions were formally repealed in August. It is true that the banks, as always during periods of trade depression, are very cautious with regard to new credits, but they do not apply any general credit restrictions. The money market has thus become extremely liquid, and from this point of view favourable conditions have been prevailing for an extension of credits and an increase in purchasing power. It is only the demand for new credits that has been lacking.

With regard to the foreign exchange market the position has improved considerably. A preliminary estimate of the balance of trade seems to indicate that imports and exports (including invisible items) now balance each other. On the other hand, sales of foreign securities continue on a big scale and have resulted in an ample supply of foreign exchange, which has been taken up by the Riksbank. Rough estimates of the balance of payments show that the importation of capital which characterized the earlier period has stopped. The exportation of securities has resulted in an increase in the foreign exchange (and the gold) reserve of the Riksbank, which means that part of our foreign holdings have changed their character and become more liquid.

The fluctuations in exchange rates were during this latter period determined by external conditions more than by any changes in the country. The improvement in the position of the Riksbank gave the Bank greater possibilities of intervening, and, on the whole, the Bank has been a seller of foreign exchange when the rates have been rising, and a buyer when the rates have been falling, thereby smoothing out the fluctuations. Moreover, the Bank has been aiming at adjusting the sterling and dollar rate of the "krona" in such way as to prevent the heavy fluctuations in the dollar rate of the pound sterling during the winter and spring from making themselves felt only on one side. The fall in the sterling rate (in dollars) in November last year was thus reflected on the Swedish market partly by a fall in sterling, partly by a rise in dollar, and when the opposite movement took place this year, the Riksbank followed the same principle.

The previous stability of the sterling rate was thus abandoned in order to prevent too heavy fluctuations in the dollar rate, and the motive for this policy was the desire of the Bank to attain as stable conditions as possible on the foreign exchange market. Since the foreign trade of Sweden is spread over many countries it is considered undesirable to fix the exchange rate on one country. "The needs of industry and trade" require stability as far as possible, and the Riksbank can thus find support for its foreign exchange policy in the statement made by the Banking Committee.

With regard to prices, the development has not gone in the direction recommended by the Banking Committee and the Riksdag. So far from a revival of prices having taken place, there has been a fall in prices since the autumn of 1932, in Sweden as well as on the international markets, and this fall is characteristic of all groups of commodities, import commodities as well as export commodities and home products. It has not been enough, as the Banking Committee tacitly assumed, to lower discount rates and make the money market easy—the Riksbank's heavy purchases of foreign exchanges have contributed to the easier conditions in the money market and have thus had the same effect as open market operations in the American or English sense. In spite of the favourable conditions there has been no rise in prices: one necessary factor has failed, namely an increase in the demand for new credits, which should have led to an increase in purchasing power.

In this situation the discussions on the means available for alleviating the crisis more and more centred round the problem of public works and their economic effects. The idea that such works, besides their social aim, could be used for improving trade conditions and raising prices is also in the background of the Government programme of spending about Kr. 160,000,000 on public works. It was felt, however, that a more definite pronouncement on the monetary policy had to be made, and for this purpose an expert committee was appointed in April 1933 to advise the Government on the course to be followed. The report of this committee is rather interesting. They do not recommend any new line of policy, but their direct pronouncement that *a moderate rise in wholesale prices is the object of the monetary policy* irrespective of the development abroad is much more precise than the vague declaration of a year ago that a rise in wholesale prices should be allowed. In the spring of 1932 it was still believed that a rise would come about if only credit conditions were made easier and the supply of money increased. Now it is seen more clearly that special efforts have to be made in order to raise prices. This change in attitude has had another consequence, namely, that it has become necessary to discuss the problem of the *means*, and this question has, in fact, assumed great proportions in the proceedings of the committee.

The discount rate is now 3½ %, and great efforts are being made to bring about a reduction in the rate to 3 %. It is probably only a question of time before the decrease takes place, but it is not probable that in the present situation it will have any great effect on the demand for new credits. It will lessen the interest burden of old debts which is of importance for farmers and industrial undertakings, and it will support other measures for the purpose of creating an increase in purchasing power. Lower interest rates are a necessary condition for raising prices, but they are not sufficient in themselves.

Open market operations, on the other hand, would only increase the balances of the banks at the Riksbank. These balances are already high enough to allow a credit expansion, and it is hardly probable that a further rise would have this effect. Failing an internal demand which the bankers think it advisable to satisfy a greater liquidity would probably only lead to short term investments abroad. The banks are, moreover, anxious to maintain their liquid position in view of the change in the character of the fixed deposits, which now comprise greater amounts than usual of what is, in fact, short term money, and they are therefore reluctant to invest their surplus money in loans.

The efficiency of the monetary weapons of the Riksbank has thus proved to be less than in normal times—a fact which has been stated by the Board of the Riksbank in the written demand to the Government that the exemption from gold payments be prolongated after June 15, 1933,* and which has been taken by the Board as a proof that it is very unlikely that anything can be done to raise prices. In this situation the majority of the committee have found that the financing of the Government programme of public works could be made in such forms as to promote the object of the monetary policy—a rise in prices. Firstly, increased taxation which would encroach on the supply of capital for private enterprises has to be avoided. This leads to Government borrowing on a big scale even for purposes which as a rule are not financed by loans. Moreover, borrowing should be made in such a form that a strain on the money market is avoided. Short term borrowing by means of treasury bills or one to two year bonds would probably absorb the capital which is seeking but cannot find employment under present conditions. The effect should be an increase in purchasing power through a more rapid circulation of the means of payments available.

But in the last instance, according to this point of view, the Riksbank ought to take an active part in the financing by taking over Government securities, not by purchases of old securities in the open market, but directly out of new issues made by the National Debt Office, the proceeds of which would be used for the payment of wages, the purchase of materials, etc., at the public works. It has been strongly emphasized that this method of Government finance would in normal times be extremely objectionable. But the situation is so critical that everything must be done to check the deflation, to increase employment, and to raise prices. Only by creating purchasing power and making this purchasing power effective by means of the public works can the desired rise in prices be attained.

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* This exemption is only granted for a short period and prolongated from time to time.

Some of the members of the committee have been somewhat sceptical as to the effect of these measures on prices. Owing to the fact that industry is working at far less than its normal capacity and that nearly 200,000 workers are unemployed, it is believed that the result would only be an increase in employment. But this would in itself be of such great importance to industry and trade that it justifies the unusual measures.

As to the foreign exchange policy, the committee declared that the Riksbank should aim at promoting an adjustment of exchange rates to the changes in the internal purchasing power of the currency, since if it is of importance that the activities of the Riksbank in all spheres be adapted to the main line of policy to be pursued, the reflation of prices. But, on the other hand, the committee has strongly condemned a foreign exchange policy which aims at a depreciation of the external value of the currency in order to obtain commercial advantages, a policy that has been pursued by certain countries.

In the Government Bill laid before the Riksdag on May 27th, regarding a prolongation of the exemption for the Riksbank from gold payments, the Minister of Finance made a declaration on the monetary policy. In this declaration he has followed the lines of the monetary committee, and without going into details he has pointed to the active co-operation of the Riksbank in the financing of the programme of public works. He finds the possibilities of the Riksbank to influence prices greater than the Board has intimated, and emphasizes that these possibilities ought to be used for attaining the object in view.

But he also has pointed out that, just as the deflationary forces in the autumn of 1931 were underrated, there might be a tendency in this situation to underrate the inflationary forces which a change in international trade conditions might create. He has therefore stressed the necessity of counteracting every tendency for prices to rise higher than it is intended they should do.

Another point of great interest in the report of the committee and in the declaration of the Minister of Finance is the great emphasis laid on the co-operation between the monetary authorities and all official and private institutions in order to promote the realization of the monetary programme. We have here one of the most important elements in the monetary policy of a country with a managed currency, namely, that this policy cannot be isolated from the economic and financial policy of the country in all its aspects, but that the measures of all the different Government and private institutions must be brought into harmony with each other and concentrated into one concerted effort for attaining the common object. The rise in prices is not in itself anything to struggle for. The final object to pursue is to overcome the depression and to bring about an improvement in the economic conditions of the country.

NOTE.—This article was written at the end of May 1933. Since then the money market has become still more easy, and as was expected the official discount rate has been lowered to 3 per cent. The commercial banks did not immediately follow the example of the Riksbank in view of the competition from the savings banks. In August the plethora of money and the rapid increase in their balances at the Riksbank caused some of the big banks to reduce deposit rates, leaving loan rates, however, unaltered. The Government programme of public works has been held up by a labour conflict in the building trades. The standstill in these important trades is one of the causes of the easiness of the money market. Another important factor is the increase in the supply of foreign exchanges due to the favourable development of the balance of trade and the sales of foreign securities. The trend of prices has lately been upwards under the influence of the rise of international prices, and there are signs of a trade improvement in the big export industries.

LA RÉVOLUTION DÉMOGRAPHIQUE

ADOLPHE LANDRY, *École des hautes études, Paris*

CETTE révolution est un des grands faits de l'époque contemporaine — marquée par ailleurs, on le sait, par tant de découvertes, de créations et de changements dans les domaines de la science, de la technique, des institutions, des doctrines et des croyances —.

Considérons l'Europe. Depuis le début du 19° siècle, la population de celle-ci s'est accrue, la France exceptée, selon un rythme beaucoup plus rapide que celui des temps précédents, bien que l'Europe ait largement contribué au peuplement de quantité de contrées: les États-Unis et le Canada, l'Argentine et le Brésil, l'Afrique du Nord française et l'Afrique du Sud, l'Australasie, la Sibérie.

J'ai mis la France à part. Si, de 1800 à 1930, la population du territoire français actuel s'est augmentée de 48 %, l'accroissement "naturel" a été moindre, car la France a eu, de 1841 à 1930, plus de 3 millions d'excédent de l'immigration sur l'émigration: le taux moyen de cet accroissement a été du même ordre qu'au 18° siècle.

Mais prenons l'Angleterre. Celle-ci, avec le pays de Galles, comptait 8,893,000 habitants en 1800, et 39,948,000 en 1930: c'est une augmentation de 350 %. Si l'on tient compte qu'il y a eu, dans la période considérée, une forte émigration — l'excédent de l'émigration sur l'immigration a été de 3,252,000 entre 1841 et 1930 —, on voit que, par son mouvement naturel, la population anglaise aurait sans doute quintuplé au cours de cette période. Rien de pareil, certainement, ne s'était vu dans les siècles antérieurs.

La population de l'Europe entière, que l'on estime avoir été de 188 millions d'habitants en 1800, se montait à 498 millions dans les dernières évaluations: c'est une augmentation de 165 %.

Il est à noter qu'en même temps que la population européenne augmentait dans une mesure considérable, la condition matérielle des habitants de l'Europe s'améliorait considérablement aussi: on a estimé qu'en France, entre 1830 et 1910, le pouvoir d'achat du salaire courant avait à peu près doublé. Et l'amélioration s'est produite par rapport aux besoins alimentaires — contrairement aux vues qu'avait développées Malthus — tout comme par rapport aux autres. L'accroissement de la productivité — dû principalement aux progrès inouïs réalisés par la technique — a-t-il contribué, comme facteur ou comme condition, à l'augmentation accélérée de la population? Ne nous hâtons pas de vouloir répondre à cette question — que nous pourrons retrouver par la suite —: attachons nous, pour l'instant, aux faits démographiques dont le mouvement de la population, en tant que "naturel," est la résultante, à savoir la mortalité et la natalité.

La mortalité, depuis le début du 19° siècle, a accusé en Europe une forte baisse.

En France, le taux de la mortalité — qui semble avoir été d'environ 33 % vers 1770–74 — était de 26,1 dans la période 1811–20, et de seulement 16,3 en 1930. En Suède, après avoir eu 27,4 dans la période 1749–60, on retrouve 27,9 en 1801–10, pour descendre à 11,7 en 1930. En Angleterre, on passe de 22,4 en 1841–50 à 12,3 en 1931; en Allemagne, de 26,8 en 1841–50 à 11,1 en 1930. Pour la Russie d'Europe, les taux sont 34,1 en 1891–1900 et 18,9 en 1928.

A la vérité, les taux "bruts" de mortalité ne donnent pas une idée juste des situations: c'est qu'ils subissent l'influence de la distribution de la population par âges, laquelle est très variable, et qui ne serait vraiment normale que si elle était conforme à la "table de survie," dressée pour le moment que l'on considère. Si en Hollande, en Australie, le taux brut de la mortalité est inférieur à 10 ‰, ce qui signifie qu'il y meurt chaque année moins d'un centième des habitants, gardons nous de croire que la durée moyenne de la vie y dépasse cent ans; si dans le Saskatchewan, dans l'Idaho on a des taux de 7,2, 7,1, ce n'est pas que les hommes y vivent en moyenne 140 ans; mais on a, dans ces pays, une proportion élevée d'adultes jeunes, qui meurent peu, une proportion faible de vieillards et d'enfants du premier âge, qui meurent beaucoup.

Ce qui permet de bien apprécier la situation d'une collectivité au regard de la mortalité, c'est la durée moyenne de la vie, l'"espérance de vie" ouverte au nouveau-né, si l'on suppose que les taux de mortalité existant, au moment de sa naissance, pour les différents âges de la vie demeureront constants. Cette espérance de vie était, dans le sexe masculin:

en France ..	de 52,2 ans	vers 1920–25	contre 38,3 ans	vers 1825
en Angleterre ..	55,6	1920	39,9	1845
en Allemagne ..	56	1925	35,6	1875
au Danemark ..	60,3	1925	42,6	1845

Pour le sexe féminin, elle est supérieure de 2, 3 et 4 ans selon les pays.

Dans l'Inde, cependant, la durée moyenne de la vie, calculée pour le sexe masculin, était seulement de 22,6 ans en 1905.

Pour ce qui est de la natalité, nous voyons qu'en France elle est descendue, depuis le début du 19° siècle, ou mieux depuis la fin du règne de Louis XV, d'une manière à peu près continue. Après avoir été, semble-t-il, tout près du taux de 40 ‰ vers 1770–74, elle se trouvait être de 31,8 dans la période 1811–20, et elle s'est abaissée jusqu'à 17,3 en 1932, la descente n'ayant guère été interrompue que par des paliers, dont le plus long correspond au second empire.

En Suède, on était, comme taux de natalité, à 36 en 1749–60, à 30,9 en 1801–10; on remonte à 34,6 en 1821–30, après quoi une pente bientôt régulière conduit au taux de 14,5 en 1932.

Voici maintenant des pays où la natalité a subi un grand déclin à une époque récente. En Finlande, on avait le taux de 45 en 1751–60, 36,3 en 1810–10, 38,2 en 1821–30, 37 encore en 1871–80, et 19,5 en 1931. En Belgique, le taux était de 33,5 en 1831–40, de 30,9 en 1841–50; il se retrouve à 32,3 en 1871–80, et décline ensuite jusqu'à 18,2 en 1931. En Hollande, on monte de 33 en 1841–50 à 36,2 en 1871–80, pour descendre ensuite à 22 en 1932. En Angleterre, on monte d'une manière analogue à 35,4 en 1871–80, et l'on n'est plus, en 1932, qu'à 15,3. En Allemagne, on enregistre 39,1 en 1871–80, et 15,1 en 1932.

Dans d'autres pays, le déclin a commencé plus tard, et est allé moins loin. En Italie, pour la période sur laquelle on est renseigné, le maximum, 37,8, est atteint en 1881–90; on est à 23,6 en 1932. En Roumanie, on a atteint 42,8 en 1911–12, pour descendre à 35 en 1930.

Les chiffres qui viennent d'être cités sont instructifs, et édifiants. Mais pas plus que les taux bruts de mortalité, les taux bruts de natalité ne permettent la juste appréciation de la réalité démographique. Pour la mortalité, comme il a été dit, ce qu'il est intéressant de savoir, c'est la durée de vie que promettent au nouveau-né les mortalités par âges existant au moment de sa naissance. Du côté de la natalité, on calculera le nombre d'enfants que le nouveau-né aura, si les mortalités par âges et les fécondités par âges demeurent constantes.

D'après Kuczynski, en France, 1,000 filles nées en 1926 étaient destinées à produire 937 filles. A la même date, le taux de la "reproduction nette" était de 0,89 en Allemagne, de 0,86 en Angleterre, de 0,93 pour l'ensemble des pays de l'Europe occidentale et septentrionale. Il était, en 1928, de 0,782 pour l'Autriche, en 1930, de 0,858 pour la Suède.

Voilà donc des pays qui ont encore des excédents de naissances — en raison d'une distribution de la population par âges qui résulte de la précédente évolution démographique, et que l'on est fondé à qualifier d'anormale —, mais où la dépopulation est virtuellement installée.

La reproduction nette est déficitaire dans nombre de pays, ce qui signifie que les conditions démographiques existant dans ces pays n'assurent plus le remplacement des générations. Mais si l'on considère, au lieu des pays, certaines grandes villes, des taux de reproduction bien inférieurs, par conséquent des déficits beaucoup plus forts apparaîtront. Le taux de la reproduction nette était, en 1930, de 0,365 à Stockholm, en telle sorte que, dans cette ville, le remplacement des générations n'est plus assuré qu'à raison d'un peu plus du tiers.

Une pareille situation n'est point sans précédent. La dépopulation, comme résultat du déclin de la natalité, sévissait dans la Grèce au temps de Polybe, qui en a témoigné. Elle a sévi aussi dans l'Italie antique. Mais dans ce qui se passe à notre époque, nous trouvons des caractéristiques qui sont nouvelles.

La "dénatalité" a affecté, dans l'antiquité, certains pays, quelques provinces de l'empire romain. Elle présente, de notre temps, une généralité beaucoup plus grande. En attendant qu'elle affecte l'humanité entière — ce qui apparaît comme une probabilité du futur: car la civilisation contemporaine, dont la dénatalité est, peut-on dire, un produit, tend à devenir universelle —, il n'est pas aujourd'hui un pays de population européenne où on ne l'observe. La Russie d'Europe, en 1928, avait un taux de natalité de 43,8, à coup sûr très élevé. Mais elle avait, antérieurement, dépassé 50; elle était à 49,2 en 1891–1900. Et en 1928, si le taux était de 43,8 pour l'ensemble de la Russie d'Europe, il était de 34,2 pour l'Ukraine, de 26,5 pour les villes de l'Ukraine, de 19,2 pour les quatre plus grandes de ces villes, de 17,9 à Odessa: on voit là, selon toute vraisemblance, les commencements d'un changement qui est destiné à s'étendre à toute la Russie.

La deuxième caractéristique à relever, c'est la rapidité qu'accuse l'abaissement de la natalité, et l'accélération que l'on constate d'une façon générale dans ce mouvement, lorsqu'on en compare le rythme dans les pays où il est plus ancien et dans ceux où il est plus récent.

Si, en France, le taux de la natalité est descendu de 31,8 en 1811–20 à 17,3 en 1932, c'est, en 115 ans, une baisse de 14,5 points, et de 45 %. Mais en Allemagne, en passant de 39,1 en 1871–80 à 15 en 1932, c'est en 57 ans seulement une baisse de 24,1 points, et de 62 %. En 1912 encore, la natalité allemande était au taux de 35,1: elle a donc baissé, depuis cette date, de 57 % en 20 ans, c'est-à-dire de plus de moitié dans un espace de temps moindre que l'intervalle de deux générations. A Berlin, elle a baissé comme de 5 à 1 dans l'espace d'à peine un peu plus d'un demi-siècle. Dans l'Ukraine, la natalité a baissé de 42,7 à 34,2, soit de 20 %, de 1925 à 1928, en trois ans; elle a baissé dans le même temps, à Odessa, de 30,8 à 17,9, soit de 42 %. Ainsi, certaines mœurs s'étant généralisées dans quelques pays, par une évolution relativement lente, ces mêmes mœurs, ensuite, se répandent dans d'autres pays par l'effet de l'imitation, plus rapidement, si vite, parfois, que le changement réalisé apparaîtra, avec un peu de recul, comme une sorte de conversion collective.

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J'ai indiqué que le régime démographique qui se propage aujourd'hui à travers le monde n'était point une chose nouvelle dans l'histoire — et à ce propos il y a lieu d'exprimer le regret qu'il n'ait pas été étudié davantage dans ces précédents que nous présente l'antiquité grecque et latine —. Mais ce sont des régimes très différents de lui que, jusqu'au 19° siècle, l'on rencontre communément.

Le premier régime à mentionner ici est celui que l'on pourrait appeler primitif. C'est celui des êtres vivants autres que les hommes. Il a été longtemps celui des sociétés humaines. A notre époque encore, on peut l'observer dans bien des pays.

Le régime dont il s'agit est caractérisé par le fait que la natalité — au moins dans les classes inférieures, c'est à dire les plus nombreuses — y est à son maximum: d'où il résulte que la population tend vers son maximum, et ordinairement s'y trouve établie.

La natalité y est à son maximum: pas au maximum absolu, mais à celui qui se détermine en tenant compte non seulement des facultés procréatrices des individus, mais aussi des coutumes relatives à l'âge du mariage, à la durée de l'allaitement, etc. Ce qu'il faut entendre, c'est qu'aucune préoccupation d'ordre économique ne vient restreindre, directement ou indirectement, la natalité. Ceci étant, la population tendra à se multiplier, elle se multipliera jusqu'à ce que les conditions de vie, abaissées par cette multiplication, aient fait monter la mortalité au niveau même ou est la natalité, enrayant ainsi l'accroissement de la population.

On dit volontiers que dans un tel régime, les classes inférieures sont réduites au "minimum d'existence." Cette expression risque de créer une opinion fausse. S'il faut que l'on parle de minimum d'existence, entendons bien que les hommes qui seront réduits à un tel minimum — de même que les bêtes, dont c'est le sort d'y être réduites — ne subiront pas chaque jour des privations extrêmes. Pour que la mortalité égale la natalité, si abondante que soit celle-ci, il n'est pas besoin qu'on en vienne là.

Ce qu'il convient surtout de souligner, c'est que le régime démographique primitif comporte un équilibre: la mortalité, résultat de la densité de la population, limite à son tour cette densité. Ajoutons, toutefois, que la détermination de l'équilibre dont il s'agit n'est pas sans présenter des difficultés. On voudra sans doute laisser de côté les catastrophes résultant d'événements exceptionnels, comme un déluge, une invasion, une peste noire. Mais s'il y a des épidémies, des famines qui reviennent périodiquement, encore que la périodicité n'en soit pas très régulière, et si la fréquence de ces accidents est telle que le maximum théorique de la population soit rarement atteint, ou ne le soit jamais, l'équilibre de la population pourra-t-il être défini sans tenir compte des fluctuations ainsi constatées?

Il va de soi que les conditions de l'équilibre pourront changer. Le progrès technique augmente-t-il la productivité? Si nous prenons les choses en gros, sans discuter sur les différentes sortes de biens pour lesquels cette augmentation aura été obtenue, l'équilibre comportera une population plus nombreuse, avec le même niveau de bien-être. Si des progrès de la médecine et de l'hygiène abaissent la mortalité autrement qu'en supprimant les épidémies, ou en réduisant la mortalité exceptionnelle qu'elles causent, la population en sera également accrue; mais cette population, devenue plus nombreuse sans que la production ait été augmentée, paiera d'une diminution de son bien-être quotidien l'avantage obtenu. Si ce sont les épidémies, les famines que l'on combat avec succès, la population atteindra plus souvent le maximum théorique, où le niveau du bien-être est moindre que lorsqu'elle est au-dessous de ce maximum.

Voici maintenant un autre régime démographique. C'est celui qui a existé en France jusque vers la fin du 18° siècle, et qui, ailleurs, s'est prolongé plus longtemps. Ici la préoccupation économique se manifeste au regard de la constitution de la famille. On prétend — d'une manière générale, s'entend — pour soi, pour les siens, à un certain niveau de bien-être, celui qui correspond à la façon de vivre commune dans la classe sociale à laquelle on appartient. Il s'agit, en somme, de maintenir le niveau de bien-être auquel on est accoutumé, d'empêcher que ce niveau ne soit abaissé par la multiplication excessive de la famille. Pour obtenir ce résultat, ce n'est pas à la restriction des naissances que l'on recourt: une fois marié, on laisse agir la nature. Mais quand une famille est nombreuse, une partie des enfants, surtout si cette famille a du bien, ne se marient pas, soit qu'ils entrent en religion, qu'ils aillent faire carrière au dehors, soit qu'ils restent dans la maison paternelle pour contribuer par leur travail à l'entretien de celle-ci, et aider à l'éducation de leurs neveux. Beaucoup d'hommes, par ailleurs, se marieront, mais seulement après s'être assuré une situation leur permettant d'élever convenablement les enfants qui viendront.

Je viens de définir un deuxième régime démographique. A la définition que j'en ai donnée, les faits ne correspondront jamais d'une manière parfaite. Dans le régime démographique primitif, il y a un automatisme; l'équilibre résulte d'une chaîne de causes et d'effets où la volonté de l'homme ne se manifeste pas: la procréation sans restriction, le niveau de vie qui en résulte, la mortalité que détermine ce niveau de vie. Dans le deuxième régime, le régulateur immédiat de la population n'est plus la mortalité, mais la nuptialité. Ici jouent les calculs de l'homme, tantôt se déterminant au célibat, tantôt retardant l'âge du mariage. Mais la tendance qui inspire de tels calculs, cette tendance que j'indiquais comme dirigée vers le maintien du niveau de vie accoutumé, aura nécessairement, chez l'individu, quelque chose d'un peu vague; elle pourra varier selon les individus; les calculs qu'elle inspirera aux uns et aux autres ne sauraient aboutir exactement, dans l'ensemble, au résultat énoncé plus haut. Il y a encore un équilibre, mais il ne se réalisera que d'une façon approximative. Comment d'ailleurs, s'il n'en était pas ainsi, le passage du premier régime au deuxième se serait-il effectué?

Supposons une réalisation parfaite du deuxième régime démographique. Comme dans le premier, les conditions de l'équilibre pourront changer. Si des progrès de la médecine tendent à accroître la population sans que la productivité augmente, le frein fonctionnant du côté de la nuptialité devra agir plus fort, pour empêcher cet accroissement de la population. Si des progrès techniques augmentent la productivité, la population s'accroîtra. La population de la France paraît s'être accrue, entre 1700 et 1789, de 23 %: cela correspond aux progrès techniques intéressants réalisés dans cette période, principalement par l'agriculture. Mais dans les trois premiers quarts du 19° siècle, c'est-à-dire dans une période plus courte, la population anglaise s'est accrue de quelque 175 %: c'est qu'il s'agit d'une période où la productivité a progressé à un rythme sans précédent, où l'Angleterre, en outre, a augmenté considérablement les profits qu'elle réalisait en produisant, en transportant, en commerçant, en assurant, en finançant pour les autres pays.

Arrivons au régime démographique que l'on observe aujourd'hui en France, en Suède, et dans tant de pays. Il offre deux caractéristiques: une tendance très répandue vers un niveau de vie plus élevé, et d'autre part la pratique généralisée de la restriction des naissances dans le mariage, qui permet de dire que la natalité est devenue le principal facteur réglant le mouvement de la population.

De ces deux caractéristiques, quelle est celle à laquelle il faut attribuer l'antériorité? On sera peut-être tenté de penser que lorsque les hommes, ne se contentant plus de maintenir leur situation, ont voulu l'améliorer, c'est là que le "contrôle des naissances" s'est imposé à eux; à l'appui d'une telle opinion, on fera remarquer que le célibat, le mariage retardé, ne sauraient donner, comme moyens de restreindre la procréation, que des résultats limités: des besoins, des nécessités même de divers ordres font que la plupart des hommes se marient, et se marient à un âge relativement peu avancé. Mais on pourra soutenir aussi que la propagation des pratiques restreignant les naissances a été le premier fait: quand on a vu les conséquences où pouvait conduire, quant aux conditions de vie, la restriction des naissances, alors le désir d'améliorer ces conditions s'est substitué à celui de les maintenir. Disons que la question posée est délicate, les deux faits considérés agissant, l'un vis à vis de l'autre, à la fois comme cause et comme effet.

Quoi qu'il en soit là-dessus, le nouveau régime démographique présente, par rapport aux précédents, une différence dont l'importance est capitale. Le premier régime comportait un équilibre automatiquement assuré. Le deuxième en comportait un qui résultait de certains calculs humains, et qui, à ce titre, ne pouvait se réaliser qu'approximativement. Dans le troisième, il n'y a plus d'équilibre.

Comparons le troisième régime au deuxième. Quand les hommes tendent à conserver leur niveau de vie, l'idée de l'équilibre est incluse dans cette tendance; au lieu que la tendance vers un niveau de vie plus élevé est un principe, non plus de stabilité, mais de mouvement.

S'agit-il des pratiques par lesquelles les tendances recevront satisfaction? On vient de voir que les pratiques affectant la nuptialité ne jouent en fait que dans une marge limitée. La restriction des naissances a un jeu beaucoup plus ample. Certains ménages souhaitent avoir des enfants des deux sexes, et ils augmentent leur progéniture jusqu'à ce que ce souhait soit accompli, si du moins il ne leur faut pas, pour cela, prolonger trop la série des naissances. D'autres s'arrêtent à trois enfants, considérant qu'avec ce nombre, ils ont satisfait à la vieille loi qui veut la multiplication de l'espèce. Certains voudront ou accepteront deux enfants, pour courir la chance d'avoir un garçon et une fille, et parce que de la sorte ils pensent assurer, pour leur part, le remplacement de la génération à laquelle ils appartiennent. Il en est beaucoup qui s'en tiennent à l'enfant unique, nécessaire à leurs yeux, mais suffisant aussi pour animer le foyer, pour recueillir le patrimoine, pour continuer les affaires. Et voici qu'il y a également des ménages qui se forment avec la détermination de ne jamais avoir d'enfant; ou bien encore on y décide de vivre pendant un certain nombre d'années sans enfants: ce qui, pratiquement, revient le plus souvent au même; car après avoir volontairement vécu seuls durant des années, les époux, à l'ordinaire, ne se résoudront plus à rompre les habitudes ainsi contractées.

Voilà quelques-uns des calculs — il y en a d'autres — par lesquels se détermine la restriction des naissances. Ces calculs sont inspirés par des sentiments divers. Parfois on s'attache au patrimoine, dont on veut éviter le morcellement. Souvent on pense aux enfants: si l'on veut en avoir peu, c'est pour pouvoir les choyer davantage, c'est pour leur donner l'instruction grâce à laquelle ils s'élèveront au-dessus de la condition des parents. Mais il y a aussi des sentiments égoïstes, qui font considérer l'enfant comme une cause de dépense, et aussi comme une incommodité: ne fera-t-il pas obstacle à l'exercice de l'activité professionnelle de la mère, si celle-ci a une telle activité? ne gênera-t-il pas les parents dans leurs plaisirs, pour les déplacements, dont le goût se répand toujours davantage et devient toujours plus vif? Et l'on note que le rôle des sentiments égoïstes devient de plus en plus important; on note que parmi ces calculs que l'on peut faire, on va de plus en plus vers ceux qui rendent la restriction des naissances plus rigoureuse.

Où donc s'arrêtera-t-on sur la pente de la dénatalité? Il est impossible de le dire. Y aura-t-il même un arrêt? En tout cas, on aperçoit aisément ce que signifient les niveaux où le taux de la reproduction est dès à présent descendu dans certains pays, dans certaines villes: c'est, si les données démographiques présentement observées ne s'améliorent pas, la perspective de la dépopulation, et même d'une dépopulation à rythme rapide.

Dans le troisième régime démographique, on a vu qu'il n'existait plus d'équilibre de la population. Point n'est besoin, dès lors, de discuter les conditions de l'équilibre. Il pourra d'ailleurs arriver que tel des facteurs qui, dans les autres régimes, agissait sur la population cesse d'exercer une influence de cette sorte. Que dire, à cet égard, de l'augmentation de la productivité, et de l'augmentation du bien-être général qui en est la suite? Faudra-t-il croire, avec certains, qu'elle est contraire à l'intérêt de la population? La loi sur laquelle on fonderait une opinion pareille, à savoir que la natalité baisse quand l'aisance s'accroît, paraît se vérifier moins chaque jour. Il y a une dissociation à peu près complète entre la variation de la richesse et celle de la population.

La mortalité, en tant qu'elle est influencée par les progrès de la médecine et de l'hygiène, a sur la population une action certaine. Mais cette action demande à être bien comprise.

C'est l'idée commune, qu'on a la possibilité de compenser, par l'abaissement de la mortalité, les effets du déclin de la natalité. Cette idée est erronée.

Que pourra-t-on obtenir dans le sens de la diminution de la mortalité? Il semble bien que les progrès réalisés jusqu'ici par la médecine et l'hygiène, s'ils ont préservé les hommes, dans une très large mesure, des décès prématurés, n'aient en rien augmenté la vitalité de l'octogénaire. Il semble, quant à présent, qu'il y ait un terme naturel pour la vie humaine, le même qu'hier ou que jadis, comme il y a un terme pour la croissance de l'être humain, sous le double rapport de l'âge où elle s'arrête et de la taille qui est atteinte. Veut-on imaginer ce résultat obtenu, à savoir que tout enfant qui naît parvienne à l'âge de 80 ans — il n'y aurait donc jamais, avant cet âge, de mort par maladie, ni non plus de mort par accident, de meurtre ni de suicide —, et qu'après cela la vie se prolonge en moyenne pendant cinq ans? On aurait ainsi comme durée moyenne de la vie 85 ans, et comme "taux rectifié" de mortalité 1,000: 85, soit 11,76 ‰. Il n'est pas sans intérêt de noter que ce taux serait supérieur aux taux de natalité que l'on relève dans nombre de capitales et de grandes villes. Mais l'essentiel n'est pas là. La vie moyenne deviendrait-elle égale à 100 ans, à 200 ans, tant que la mort demeurera la loi inéluctable de l'homme, la dépopulation se produira, l'humanité s'acheminera vers l'extinction si la reproduction est déficitaire.

Abaisser la mortalité sans rendre l'homme immortel, c'est à coup sûr provoquer une augmentation une fois acquise de la population; mais ce n'est rien provoquer d'autre, si l'abaissement de la mortalité, c'est-à-dire l'allongement de la vie, est réalisé au profit des vieillards; or une augmentation une fois acquise de la population ne saurait, à la longue, prévaloir contre ce principe de dépopulation indéfinie qu'est une reproduction déficitaire. Dans la mesure seulement où l'abaissement de la mortalité profitera à des enfants, à des adolescents, à des adultes encore en âge de procréer, alors, en tant que cet abaissement augmentera la reproduction, il aura, en plus du premier effet mentionné ci-dessus, un effet d'un caractère indéfini sur la population. Mais ce que l'on pourra gagner de la sorte, par l'abaissement de la mortalité, pour la reproduction — laquelle est le fait démographique entre tous fondamental — est limité, et assez étroitement limité.

On a vu qu'en Autriche le taux de la reproduction nette, en 1928, était 0,782. En supposant que toutes les filles nées en 1928 dussent parvenir à l'âge où la femme cesse de procréer, Kuczynski obtenait comme taux de "reproduction brute," pour le même pays et la même année, 0,969, c'est à dire encore un taux déficitaire. L'Allemagne, avec 0,88 en 1932, la Suède, avec 0,94 en 1931 — à Stockholm, 0,43 seulement en 1930 —, l'Angleterre ont elles aussi, aujourd'hui, une reproduction brute déficitaire. Si les taux de fécondité ne se relèvent pas, il n'est point de progrès de la médecine et de l'hygiène qui puisse empêcher ces pays de se dépeupler, du moins par le mouvement naturel de leur population.

Des régimes démographiques ont existé dans le monde — ils n'en ont pas encore disparu — qui comportaient un équilibre, et dans lesquels certains facteurs, modifiant les conditions de l'équilibre, agissaient, normalement, dans le sens de l'augmentation de la population. Mais un régime nouveau est apparu, et se généralise, qui ne comporte plus d'équilibre. L'homme restreint sa progéniture, il la restreint de plus en plus, au point que l'humanité en arrive à ne plus se reproduire complètement. N'est-ce point là une révolution?

Cette révolution signifie-t-elle que la nature foncière de l'homme aurait changé? Non pas. Les sentiments restent à peu de chose près ce qu'ils étaient. Ce sont les mœurs qui, dans le domaine d'où dépend la multiplication ou l'extinction de l'espèce, ont subi un grand changement. Mais ceci étant, des conséquences de toutes sortes, souvent considérables au plus haut point, ne peuvent manquer d'en résulter: conséquences économiques, sociales, politiques, morales. Et tout d'abord, le fait même de la variation quantitative de la vie, peut-on le tenir pour indifférent?

La révolution démographique, cependant, n'est pas achevée. On ne saurait, dès lors, en suivre la marche avec trop d'attention: il n'est rien qui mérite d'avantage d'être observé et étudié.

L'ÉVOLUTION PARTICULIÈRE DE LA CRISE EN FRANCE

HENRY LAUFENBURGER, *de l'Université de Strasbourg*

LA FRANCE a mieux résisté à la dernière crise mondiale qui s'est déclanchée aux États-Unis en 1929 et s'est répercutée ensuite en Europe, que la plupart des grandes économies européennes. D'abord elle n'a été atteinte sérieusement par la dépression économique qu'en 1931, puis elle n'en a subi les conséquences que d'une façon relativement modérée. Les principaux indices économiques le prouvent. Il suffit de rappeler que l'index français de la production industrielle n'a baissé que de 41 points de 139 en 1929 à 98 fin 1932, alors que l'index américain (États-Unis) est revenu de 177 à 99 et celui de l'Allemagne de 108 à 64.

Ensuite il n'y a eu en France qu'une défaillance bancaire de grand style (Banque Nationale de Crédit) alors qu'en Allemagne et surtout aux États-Unis la crise des établissements de crédit a eu une portée générale.

Le caractère relativement modéré de la crise économique en France est communément expliqué par deux causes essentielles: le prétendu équilibre entre l'agriculture et l'industrie, la richesse de la France en capitaux. Il s'agit là de deux phénomènes touchant essentiellement à la structure de l'économie. Mais le deuxième facteur touche également à la dynamique de l'évolution économique dans la mesure où les mouvements des capitaux répondent à côté de la notion de risque à celle de la rentabilité, variable suivant les phases du cycle économique.

Nous voudrions établir dans la suite que cette double argumentation est insuffisante pour l'explication du caractère particulier que présente en France la manifestation de la crise économique. A cet effet nous allons étudier les deux aspects, structurel et dynamique, de la crise de l'économie française de 1929 à 1933.

I

La notion de l'équilibre qu'on met en avant pour expliquer la relative modération de la crise en France s'applique beaucoup plus au facteur humain de la population qu'à l'élément matériel des ressources économiques.

La superficie de la France étant de 55,096,550 hectares, la population légale s'élevait lors du recensement du 8 mars 1931 à 38,944,000 français (naturalisés compris) et 2,890,923 étrangers, au total 41,834,923.[*] La population légale atteignait en 1926 le nombre de 40,743,897, la population présente en France 40,228,491.

Depuis la guerre l'accroissement de la population française (qui s'est enrichie des habitants de l'Alsace et de la Lorraine mais appauvrie d'un nombre de victimes de la guerre à peu près equivalent) s'est effectué pour un quart par l'excédent des naissances sur les décès, et pour trois quarts par l'immigration.[†]

La forte proportion des étrangers dans la population habitant la France constitue un premier élément structurel favorable à l'atténuation de la crise. Alors que la population nationale est assez rigide d'autant plus que le coefficient d'émigration aux colonies est modeste, au contraire les étrangers constituent une masse souple, extensible en période de prospérité, compressible dès la crise et dans la phase de dépression.

(1°) Entre les années 1921 et 1926, le nombre des étrangers a augmenté de 954,488, entre 1926 et 1931 de 385,876. Ces chiffres ne couvrent pas l'immigration totale, puisque la naturalisation transforme une partie des immigrés d'étrangers en français. Ainsi il y a eu 329,788 naturalisations de 1926 à 1930. Compte tenu de ce facteur on peut évaluer à un million le nombre des étrangers venus en France de 1923[‡] à 1925 et à 800,000 de 1926 à 1931.

Or les deux périodes envisagées présentent au point de vue de l'évolution économique des aspects très différents. De 1923 à 1926, la France subit l'inflation et traverse sous son influence une phase de prospérité artificielle qui appelle des travailleurs en grand nombre. Au contraire de 1926 à 1931 la France subit deux crises: d'abord en 1927 la crise de la stabilisation, ensuite à partir de 1931 la crise économique. Les statistiques du mouvement migratoire depuis 1926 trahissent ce double phénomène.

En période de dépression (1927 et 1932) les sorties des étrangers dépassent les entrées. D'ailleurs le déficit du mouvement des étrangers dans les années de crise est plus important que les statistiques ne le font apparaître. Car alors que les entrées sont rigoureusement contrôlées, les sorties le sont beaucoup moins. Dès février 1931, M. Landry, ministre du travail avait insisté sur ce fait.*

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[*] Résultats provisoires du recensement du 8 mars, *Journal officiel* du 26–27 décembre 1931, pp. 31160–31167.

[†] *Revue d'Économie politique*, 1932, Annuaire de 1931, p. 524.

[‡] Jusqu'en 1923 l'immigration fut faible.

Ce mouvement de balancier (Pendelbewegung) du mouvement émigratoire donne à l'économie française cette souplesse qui lui évite en période de prospérité une trop grande pénurie de main-d'œuvre et dans la phase de dépression un chômage excessif. L'atténuation du chômage résulte en plus de l'importance que joue dans la population active de la France, le facteur essentiellement réductible de la main-d'œuvre féminine. Ce fait n'est pas assez apprécié dans la littérature économique contemporaine.

(2°) La population active de la France s'élève en 1926 à 21,324,088 dont 7,837,776 femmes, soit 37 %. En 1921 la part des femmes avait encore été de 40 % (8,606,059† sur 21,720,604), et alors qu'entre 1921 et 1926 les hommes actifs ont gagné 441,767, les femmes actives ont perdu 768,283. En 1926 la part des femmes dans la population active est avec 37 % encore supérieure à celle qu'elles forment avec 34 % dans la population active allemande (recensement de 1925). Ceci s'explique par l'importance de la main-d'œuvre féminine dans l'agriculture française.

Mouvement des étrangers

	1927	1928	1929	1930	1931	(3e trim.) 1932
Entrées .	64,325	97,742	164,048	221,619	102,267	33,111
Sorties . .	89,983	53,759	39,780	43,789	92,916	95,934
	−25,658	+43,983	+124,268	+177,830	+ 9,351	−62,823

Quoi qu'il en soit, l'élément essentiellement compressible que constitue la main-d'œuvre féminine est assez développé en France. De 1921 à 1926, parallèlement à l'immigration des étrangers en majorité masculins, les travailleurs féminins ont rapidement diminué, notamment dans les industries extractives et transformatrices, dans les transports et services publics industriels.‡ Il se peut que de 1926 à

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* Ainsi pour 1931 déjà M. Roger Picard estime les entrées des ouvriers étrangers à 102,000 et les sorties à 280,000 (*Revue d'Économie politique*, Annuaire de 1931, No. 3 de 1932, p. 1104).

† En 1906 il y a eu 7,694,000 femmes actives, auxquelles il faut ajouter 250,000 pour l'Alsace-Lorraine, soit un total supérieur à celui de 1926.

‡ v. à ce sujet F. Dauriac, *Le travail des femmes en France devant la statistique*, *Revue d'Économie politique*, 1933, No. 1, p. 91 et seq.

1931 la force numérique de la main-d'œuvre féminine ait de nouveau augmenté, on voudrait à cet égard deviner ce qu'apportera la publication du recensement de 1931. Mais il est aussi certain que pendant la crise, et notamment en 1931–32, la part des femmes dans l'ensemble de la population occupée a diminué plus rapidement que celle des hommes. Or un pourcentage important des femmes se retirant de l'activité professionnelle retourne au foyer, une minorité seulement s'inscrit dans les rangs des chômeurs.

Grâce à la souplesse du travail des étrangers et des femmes, la France a pu sur le marché du travail amortir les effets de la crise sans qu'il en résultât un choc et sans que le chômage complet prît des dimensions comparables à celles atteintes dans d'autres pays voisins.

(3°) Pour évaluer le chômage total, il ne suffit pas de consulter les statistiques des sans-travail secourus. A la date du 4 mars 1933 le nombre des chômeurs français inscrits est de 330,624 dans les fonds de chômage et de 1,192 dans les bureaux de bienfaisance, soit au total de 331,816 dont 258,472 hommes et 73,744 femmes. En 1932 pendant la semaine correspondante on avait compté 298,783 chômeurs inscrits contre 50,815 en mars 1931 et 11,952 en décembre 1930. L'élévation de la courbe du chômage est donc très rapide, mais la hauteur du niveau atteint est relativement faible si on ne tient compte que des chômeurs secourus. Pout atteindre le chômage total il faut apporter à ces statistiques deux corrections.

D'abord il convient de tenir compte des sans-travail ne tombant pas à la charge de la collectivité. En 1921 il y avait cinq fois plus de chômeurs non assistés que de chômeurs bénéficiant d'un secours. En 1933 on peut estimer cette proportion à 2 : 1.

Ensuite il faut ajouter aux 600,000 chômeurs intégraux le nombre de beaucoup plus important des ouvriers travaillant à temps réduit. D'après la statistique générale de la France, 951 pour mille des ouvriers occupés travaillaient encore 48 heures en octobre 1930. Dans le mois correspondant de 1932 il n'y a plus que 534 pour mille qui remplissent cette condition. A la récente séance du Bureau International du Travail, il a été déclaré que le short time est plus répandu en France que dans les autres pays européens.

Au point de vue dynamique, le chômage français présente, toute proportion gardée, la même physionomie que celui des autres pays : rapide extension depuis l'arrêt de la prospérité, état stationnaire dans la phase de crise. Mais les dimensions du chômage sont restées de beaucoup plus faibles qu'ailleurs, grâce à la structure particulière de la population,* mais grâce aussi, prétend on, à l'équilibre des conditions matérielles de l'économie française.

II

Dans une crise qui a, en tous points, la physionomie d'une crise de surproduction ou plus exactement de surcapacité, la France ferait une certaine exception par l'équilibre qui existerait entre les deux branches essentielles de son économie, l'agriculture et l'industrie. Cette notion de l'équilibre se rapporte à la capacité de production de chacune de ces deux branches et dans l'opinion courante surtout, au débouché que constitue l'une pour l'autre.

(1°) L'agriculture française a beaucoup souffert de la dépopulation de la campagne qui a éprouvé les meilleurs des départements ruraux sans que l'immigration étrangère ait toujours comblé les lacunes quantitativement et qualitativement. Le manque des bras n'a pu être compensé que très imparfaitement par le travail de la machine. Pendant la guerre on avait prédit à la France l'avènement et le triomphe de la motoculture, c'est-à-dire la substitution de l'énergie mécanique à la traction animale. Mais après la guerre, le prix élevé des tracteurs, les frais de réparation, les hauts salaires des mécaniciens conducteurs, des pannes assez fréquentes découragèrent les agriculteurs. Dès 1921–22 l'utilisation des tracteurs subit un fort recul. Aujourd'hui seul le tracteur léger se répand suivant un rythme assez lent, la France est loin des États-Unis où le nombre des tracteurs utilisés a quadruplé depuis 10 ans. La moissonneuse-lieuse est assez répandue en France, par contre les moissonneuses-batteuses à l'américaine ne sont pour ainsi dire pas utilisées. L'électrification des campagnes n'a profité jusqu'ici qu'à la ferme, mais elle n'a guerre touché les travaux extérieurs des champs.

La structure particulière de l'agriculture française s'oppose à une mécanisation comparable à celle qui a été effectuée aux États-Unis. Outre les obstacles particuliers qui s'opposent en France à l'utilisation de certaines machines, la structure du sol et la configuration du relief en France s'opposent à la généralisation de la mécanisation. Le morcellement de la propriété rurale* et surtout le nombre de parcelles dans chaque domaine, rendent l'emploi de la machine difficile du point de vue technique. Ainsi s'explique l'augmentation relativement modeste des rendements agricoles. Pour le blé ceux-ci ont atteint 14,74 quintaux à l'hectare en moyenne pour les années 1925–31 contre 13,78 en 1913. La surproduction agricole a donc été évitée, malgré le protectionnisme agraire qui, en même temps qu'il a assuré dans les bonnes années la rentabilité de l'agriculture, a d'autre part retardé les progrès de tous ordres de l'agriculture française en la mettant quelque fois trop à l'abri de la concurrence étrangère: mais le protectionnisme industriel a, lui aussi, une grande part de responsabilité en temps qu'il rend les machines agricoles onéreuses et retarde par cela et la mécanisation et la productivité.

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* Nous ne pouvons insister ici sur la répartition de la population française sur les différentes classes d'âge, et notamment sur le nombre des jeunes gens atteignant annuellement la limite inférieure de la population active (16 ans).

Enfin la généralisation du fermage en France a permis d'amortir assez facilement les conséquences de la crise: elles se sont en effet répercutées par voie de partage sur les propriétaires et sur les fermiers, alors que dans les pays de grande propriété à faire valoir direct comme dans l'Allemagne orientale, les propriétaires ont subi seuls l'assaut de la crise.

L'aisance assez remarquable avec laquelle l'agriculture française a résisté à la crise économique jusque dans ces derniers temps, repose donc autant sur des qualités de modération que sur des défauts de l'agriculture française, défauts parmi lesquels nous relevons sa routine et aussi la fuite de la campagne. Dans l'industrie, la situation est analogue.

(2°) Déjà les conditions matérielles extérieures de l'industrie s'opposent à une expansion exagérée de l'industrie comparable à celle que nous avons connue en Allemagne. La France est relativement pauvre en richesses du sous-sol. Sans doute, depuis la guerre, elle dispose, grâce au retour d'une partie de la Lorraine (Département de la Moselle) du gisement ferrifère le plus puissant de l'Europe. Mais le minerai lorrain est relativement pauvre, surtout dans la partie orientale du gisement. En plus, la région qui comprend le bassin minier, ne dispose que d'une faible population indigène.† La physionomie de la métallurgie lorraine se ressent donc de la difficulté qu'elle a éprouvée de réunir sur la superficie du gisement de minerai de fer une population d'immigration toujours suffisante. Même dans la mesure où elle a pu satisfaire les besoins de l'extraction du minerai et de la sidérurgie, la main-d'œuvre étrangère, trop instable, n'a pas permis l'éducation de travailleurs qualifiés, suffisamment nombreux pour annexer à l'industrie de base une industrie de transformation métallurgique. On sait par contre combien un bassin charbonnier constitue un réservoir humain quasi inépuisable. En Westphalie la densité de la population, établie sur les charbonnages, est entre autres responsable du développement en partie excessif de la sidérurgie et de l'industrie transformatrice, qui peut puiser sur place dans une main-d'œuvre qualifiée, adéquate et stable. Le bassin houiller du Nord de la France qui lui aussi a attiré une très nombreuse population, a une importance métallurgique moins grande que l'Est français.* D'abord puisque la production charbonnière est relativement modeste,† ensuite puisque l'industrie textile est plus ancienne et traditionnellement plus développée que l'industrie du fer.

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* D'après M. Hérisson, *La machinisme et l'agriculture française*, *Revue de l'Économie politique*, 1932, No. 4, p. 1382 et seq.

La propriété de 0 à 10 ha. représente un peu plus d'un tiers de la surface de la France: elle est entre les mains de 4 millions et demi de propriétaires. La moyenne de 10–40 héctares s'étend sur un quart du territoire. La grande propriété comprend la majeure partie des terres de montagne, de landes, de bois.

† En partie par suite de l'insuffisante fertilité du sol.

Alors que la France est donc relativement pauvre en matières premières favorables‡ à l'agglomération "industrielle," elle développe beaucoup l'exploitation d'un facteur de dispersion industrielle, savoir l'énergie hydraulique. La production de l'énergie hydraulique a passé de 3,405 millions de Kwh en 1923 à 6,876 millions en 1930.

(3°) A côté des facteurs qui ont limité l'expansion industrielle—la population et les matières premières—d'autres au contraire l'ont encouragée. Ainsi le souci de placer la production sidérurgique de la Lorraine desannexée qui avec 4 millions de fonte et 2,3 millions d'acier (chiffres de 1913) atteignait en moyenne les deux tiers de la production de l'ancien territoire, a conduit la France à développer beaucoup les industries de transformation métallurgique, clientes de la sidérurgique, telles que la construction métallique, mécanique, automobile et électrique. Mais comme cette industrialisation a commencé avec un certain retard et dans un pays dont la préponderance agricole s'était maintenue jusqu'à la guerre de 1914–18, la saturation et la surcapacité structurelle de la production ont été évitées dans la plupart des cas. Il n'y a que la métallurgie où dans les dernières années précédent la crise la

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* L'Est produit 78 % de la fonte et 68,6 % de l'acier français, le Nord respectivement 13 et 18,3 %.

† La consommation française de houille atteint 90 millions de tonnes, la production environ 50 millions.

‡ Nous ne pouvons insister ici sur la potasse et le pétrole, dont le rôle économique est relativement modeste au point de vue qui nous intéresse.

"maladie des immobilisations" s'est communiquée à certaines entreprises. La récente mise en liquidation de la Société lorraine minière et métallurgique dans laquelle les Aciéries de Longwy ont des intérêts très importants, est la pénalité fatale pour l'imprudente construction d'une puissante aciérie à la veille même de la crise économique.*

A côté de l'excès des immobilisations, la concentration très poussée a rendu certaines industries particulièrement vulnérables au cours de la dernière crise. De nombreux exemples choisis en Allemagne et aux États-Unis le prouvent. En France, au contraire, les grandes entreprises sont exceptionnelles et présentent des dimensions relativement modestes. Pour revenir à la métallurgie: tandis qu'en Allemagne, les Vereinigte Stahlwerke A.G. peuvent produire plus de 6 millions de tonnes de fonte et plus de 7 millions de tonnes d'acier par an et qu'en outre trois entreprises ont une capacité de production de plus de 700,000 tonnes de fonte et de 1 million de tonnes d'acier, en France, au contraire, l'importance des grandes entreprises sidérurgiques est plus faible. En Meurthe et Moselle 70 % de la production de fonte et d'acier sont assurés par sept usines faisant de 300,000 à 400,000 tonnes par an, en Moselle 78 % de la production de la fonte et la totalité de la production de l'acier sont assurés par cinq usines faisant chacune plus de 400,000 tonnes de fonte et 300,000 tonnes d'acier.†

Sans doute, la France applique, elle aussi, la formule de la concentration dépassant la limite des entreprises individuelles. C'est ainsi que la plupart des sociétés métallurgiques sont liées les unes aux autres et quelques unes d'entre elles à des usines de transformation par des

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* Il est curieux de constater que la Lorraine et la Sarre qui avaient étroitement collaboré avant la guerre ont renforcé leur outillage au cours de ces dernières années, (la Lorraine, les aciéries, la Sarre, les hauts fourneaux) et sont ainsi en train de rompre un traditionnelle division du travail. Les statistiques ci-dessous de la production l'attestent (milliers de tonnes).

	Lorraine (dép. de Moselle)		Sarre	
	fonte	acier	fonte	acier
1913	3,869	2,264	1,370	2,079
1929	3,835	2,964	2,105	2,209
1930	3,512	2,835	1,912	1,935

† Rapport présenté par M. Thibault devant le Conseil national économique en novembre 1932. (Importance de la sidérurgie française dans l'économie mondiale et dans l'économie nationale.)

participations financières. Dans la construction mécanique nous rencontrons une forme plus originale, celle de l'affermage: la Thomson-Houston et la Société Alsacienne de constructions mécaniques ont apporté à l'Alsthom, société fondée par elles, le droit au bail de certaines de leurs usines. Signalons en passant la forme coopérative adopté par l'U.C.P.I.M. (Unions des consommateurs de produits industriels et métallurgiques) à Hagondange.

Ces formules sont plus souples, en période de crise notamment, que la fusion aboutissant à des entreprises géantes.*

Enfin, dans l'ensemble, le tempérament de l'industriel français a constitué un puissant frein à la surindustrialisation et l'excès des immobilisations. En Allemagne p.ex. le chef technicien a joué dans la vie industrielle un rôle prépondérant surtout dans la phase de la rationalisation. Il s'est laissé guider souvent par le souci trop exclusif de la productivité et a dans une certaine mesure considéré la production comme une fin en soi. Les rapports très étroits qui existaient entre la banque et l'industrie favorisant la commandite, ont facilité outre mesure le financement de la transformation et de l'extension de l'outillage industriel.† Les considérations du marché n'ont pas toujours joué le rôle prépondérant.

Au contraire, en France, la grande industrie, au moins celle où le danger de l'hypertrophie est particulièrement prononcé, le financier s'installe de plus en plus au gouvernail. Ainsi le polytechnicien qui s'est assuré une place prépondérante dans la direction et des charbonnages et surtout de la grande métallurgie, est moins technicien que mathématicien qui se préoccupe avant tout de la rentabilité de l'affaire, de la liquidité du bilan, excluant le recours excessif au crédit. D'ailleurs la banque française est indépendante de l'industrie, et alors qu'en Allemagne jusqu'au moment de la crise les banquiers siègaient dans les Conseils d'Administration des grosses affaires industrielles, nous trouvons en France au contraire plutôt des industriels siéger dans les Conseils des banques sans y avoir une influence prépondérante. Plus encore que les entreprises industrielles, les banques elles-mêmes dirigées par des polytechniciens ou des inspecteurs de finances sont liquides en pleine crise économique.

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* Mentionnons en passant que la capacité annuelle et production des hauts-fourneaux français est de 67,300 tonnes, celles des hauts-fourneaux allemands de 138,000 tonnes.

† Il est curieux de constater qu'en Alsace où les méthodes industrielles ont prévalu pendant plus de 45 ans, des principes analogues ont continué à être appliqués même sous le régime français. Ils ne sont pas étrangers à la défaillance de nombreuses entreprises industrielles et de plusieurs banques notamment dans le Haut-Rhin.

Des facteurs de modération technique et financière qui quelquefois trahissent des qualités, quelquefois aussi les défauts de timidité et de traditionnalisme des chefs, expliquent en grande partie pourquoi l'industrie française a pu sauvegarder, à quelques exceptions près, son équilibre jusqu'en pleine période de crise.

Nous attachons pour notre part beaucoup plus d'importance à la structure particulière de l'agriculture d'une part, et l'industrie d'autre part, pour faire ressortir cette faculté de résistance à la crise qu'au soi-disant équilibre économique entre les deux éléments de l'économie nationale. Avec lui nous en arrivons au problème des débouchés.

III

(1°) La question du marché se présente sous deux aspects: d'abord l'importance respective des débouchés agricole et industriel, ensuite le rôle économique du marché intérieur pris dans son ensemble par rapport au marché extérieur.

(*a*) Il est certain que l'industrie française trouve dans l'agriculture les éléments essentiels de son approvisionnement en denrées alimentaires. Outre les produits agricoles courants, la culture de la pomme de terre, de la betterave sucrière, etc., ont dans les industries respectives (féculerie, alcool, sucrerie, etc.) leurs débouchés principaux à côté de la consommation directe. Mais pour la fourniture de matières premières industrielles au sens spécial du mot, l'agriculture française ne peut suffire de loins aux besoins industriels. Il en est ainsi pour la laine brute d'origine française qui ne rentre que pour 10 % à peine dans la consommation de nos filatures, de la soie (5 %), du lin, du jute etc. Seule la tannerie peut trouver en France de deux tiers à trois quarts de la matière première qui lui est nécessaire.

Inversement, l'agriculture n'offre à l'industrie française qu'un débouché relativement restreint. Les machines agricoles employées sur le sol français viennent en partie de l'étranger. Par ailleurs l'agriculture française n'est qu'un client médiocre pour les mines alsaciennes de potasse.* En effet, la consommation de potasse (K^2O) n'est que de 187,000 tonnes pour les 21 millions de superficie agricole en France contre 872,000 tonnes pour les 20,5 millions de surface rurale en

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* L'industrie chimique au contraire trouve dans l'agriculture une meilleure clientèle.

Allemagne. La construction mécanique et électrique ne pénètre guère non plus dans les campagnes. Il n'y a donc principalement que les textiles qui soient intéressés à la capacité d'achat des populations rurales: et encore convient-il de faire remarquer qu'une tranche importante de cette industrie, celle des articles de luxe, déjà naturellement peu accessible, y perd rapidement du terrain avec le progrès de la crise.

L'équilibre entre l'agriculture et l'industrie françaises n'a donc qu'une portée très restreinte. Il n'a joué qu'un rôle très modeste comme facteur d'atténuation de la crise. Plutôt que de scinder le marché intérieur français en deux tronçons, agricole et industriel, constituant l'un le débouché pour l'autre, il faut en revenir à l'unité de ce marché. N'est-ce pas la capacité d'achat du marché intérieur dans son ensemble qui explique la longue résistance à la crise de l'économie française?

(*b*) Il est difficile d'évaluer l'importance respective des marchés intérieur et extérieur. Sous l'influence de la crise, le marché extérieur à la disposition de l'économie française, s'est beaucoup rétréci. Ainsi les exportations de la France sont tombées de 54 milliards de francs en 1927 à 50 milliards en 1929, à 30,4 milliards en 1931 et à 19,7 milliards en 1932. Avec 60 % par rapport à 1927, la chute des exportations françaises dépasse de beaucoup la baisse des prix mondiaux.

Dans le total des exportations, les ventes destinées aux colonies françaises (Algérie comprise) ont atteintes les proportions suivantes:

	%		%
1909–13	12,82	1928	16,26
1925	14,56	1929	18,85
1926	15,39	1930	20,66
1927	14,05	1931	23,52

Ce n'est donc pas autant la part absolue des ventes coloniales dans les exportations qui constitue pour la France une assurance contre la crise. Car à vrai dire elle est plus modeste qu'on ne le pense généralement. Les colonies valent pour la France beaucoup plus par leur capacité d'absorber en période de crise une part croissante du total des exportations en diminution. Le rôle du marché intérieur français est-il comparable à celui des colonies en ce qui concerne sa part dans le total des ventes françaises?

Ici les statistiques nous laissent en défaut. Nous connaissons seulement par les récents rapports adressés au Conseil national économique et publiés dans le *Journal officiel*[*] quelques indices approximatifs. Ainsi les industries métallurgiques placent 73 à 75 % de leur fonte, 51–66 % des demi-produits et 69–80 % des produits finis en acier sur le marché intérieur. D'après M. Oualid[†] le marché intérieur achète 3/4 des tissus de coton fabriqués en France (12,4 millions de pièces de 100 mètres en 1930). Quant à l'industrie lainière, sa production étant évaluée à 18,2 milliards de francs, dans une année normale, elle en exporte dans les mêmes conditions pour 6½–7 milliards de francs. Enfin les industries chimiques ont exporté de 1928 à 1930 une moyenne de marchandises évaluées à 3 milliards de francs sur une production totale de 9 milliards de francs environ.[‡]

Pour les branches les plus importantes de l'industrie française, la capacité d'absorption du marché français s'établit donc aux environs de 75 %.[§] Un calcul assez grossier, mais qui permet au moins de dégager une tendance de l'évolution du marché intérieur, nous fournit les indications suivantes. De 1929 à fin 1932 l'indice de la production industrielle a baissé d'environ 40 %, l'indice des exportations d'environ 60 %. Comme les exportations industrielles atteignent grosso modo 25 % de la production totale (l'importance des stocks n'étant pas prise en considération) le recul de l'indice de la production pour le compte des exportations ne s'établit qu'à 15 %. Le solde soit 25 % donne une idée très vague du degré de recul des ventes sur le marché intérieur.[||]

C'est un coefficient de baisse assez modeste si nous le comparons à celui des marchés intérieurs allemand et américain p.ex. On a essayé d'expliquer cette tenue relativement bonne du marché intérieur français par la politique des prix pratiqués en France.

(2°) On prétend que la France aurait maintenu le niveau de ses prix intérieurs aussi élevé que possible pour amortir par ce moyen le choc de la crise. Pour justifier cette thèse on fait allusion au renforcement du protectionnisme et surtout à la politique du contingentement. Ces mesures restrictives, en partie imposées à la France par les défaillances monétaires d'autres pays et le dumping de toutes sortes qui les ont accompagnées ou suivies, ont en effet caractérisé la politique commerciale de la France depuis 1931. Mais nous contestons qu'elles soient l'expression d'une politique consciente de hausse des prix. Même s'il en avait été ainsi, ces mesures n'auraient atteint le but proposé que très imparfaitement. Voici d'abord les faits:

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[*] Agriculture, 1ère série, *J.O.*, 25 avril 1931.—Agriculture, 2e série, 28 juillet 1931—Industrie: soie 28 juillet 1931, cuirs et peaux et matériel des chemins der fer 12 janvier 1932, coton et laine 26 avril 1931, agriculture 3e série (vin, pommes de terre, betterave) 22 septembre 1931, métallurgie 22 septembre 1932, chimie 4 décembre 1932.

[†] Rapport cité au Conseil national économique, *J.O.* du 26 avril 1931.

[‡] Rapport de M. Fleurent, *J.O.*, 4 décembre 1932.

[§] Pour la laine la part du marché française est moindre.

[||] Les statistiques du rendement mensuel de la taxe sur le chiffre d'affaires (753 millions de fr. en juin 1929, 524 millions en juin 1931) font ressortir un recul d'environ 30 %.

INDICES DES PRIX DE GROS

A.—Indices papier France S.G.F.	1929	1930	1931	1931 déc.	1932 août	1932 déc.	1933 janv. févr.
1913 = 100							
45 articles	623	543	462	413	394	390	390
dont prod. aliment.	584	528	507	463	437	430	432
dont prod. ind.	658	558	422	370	358	355	354
126 articles	627	554	502	442	415	413	404
B.—Indices—or							
1914 = 100							
Allemagne O.St.	137	125	111	107	95	92	91
États-Unis B. of L.	137	124	105	98	93	90	87
France S.G.F.	126	110	94	85	80	79	79
INDICES DES PRIX DE DÉTAIL							
France S.G.F.							
1914 = 100							
13 articles Paris	611	614	611	557	511	505	506
34 articles Paris	621	618	609	563	535	536	535
34 articles 300 villes	603	606	599	—	—	526	—
INDICES OR DU COÛT DE LA VIE							
1913 = 100—France (Con. rég. Paris)	113	118	116	108	105	105	104
1913 = 100—Allemagne	154	147	136	130	120	118	117
1913 = 100—États-Unis	170,5	164	148	146	—	132	—

En comparant les indices français à ceux des autres pays,* on arrive à la conclusion qu'il ne peut pas être question en France d'une politique consciente et systématique de hausse des prix. Pour le prix de gros, la France est placée dans une situation comparable avec celle des pays très atteints par la crise. Leur baisse est même plus prononcée en France qu'en Allemagne p.ex. Ici se vérifie une fois de plus le caractère contagieux des prix internationaux qui est à la base du terme "prix mondiaux." Sans doute les droits de douane et surtout le contingentement différencient les prix pour les mêmes marchandises d'un pays à l'autre. Mais en France comme ailleurs, les droits ne touchent guère les matières premières, vedettes des prix internationaux. L'indice français des produits industriels contient beaucoup de matières premières exemptes de droits. Aussi la baisse de cet indice est-elle particulièrement forte. D'autre part, le contingentement qui normalement engendre la hausse à travers le canal de la rareté, ou bien est revisible et atténue ainsi cet effet, ou bien s'applique surtout aux produits agricoles et aux produits industriels finis pour lesquels il n'y a plus de prix mondiaux au sens étroit du mot. Ainsi s'explique la baisse relativement modérée de l'indice des produits agricoles.

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* Cette comparaison est délicate et n'a qu'une valeur restreinte à cause de la différence qui existe dans l'élaboration des indices.

La physionomie des prix de détail en France est différente. Ici la résistance à la baisse est évidente. Sans doute on ne peut pas comparer directement l'indice des prix de gros portant sur 45 ou 126 marchandises agricoles et industrielles avec l'indice des prix de détail comprenant 13 articles mal choisis, dont 11 d'ordre agricole. Mais les chiffres-indices des 34 articles et surtout ceux du coût de la vie qui reposent sur une base plus large, confirment la résistance à la baisse.*

On pense aussitôt à l'influence de la circulation monétaire sur les prix de détail. En fait, depuis 1929 l'encaisse-or de la Banque de France a passé de 31 à 83 milliards à la fin de décembre 1932.†

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* Il est à remarquer que le coût de la vie avait moins monté en France que dans les autres pays, le point de départ de sa baisse est en effet à 118 en France (1930) contre p.ex 154 en Allemagne (1929). On pourrait en conclure que la faiblesse de la baisse du coût de la vie en France serait plutôt normale. Telle semble être la pensée de M. Duchemin dans son discours fait le 24 mai 1933 à la Confédération générale de la Production Française. Le basant sur l'index des prix de détail (tout à fait imparfait d'ailleurs pour la France), il constate qu'en décembre 1932 le niveau de ces prix en France tout en ayant moins baissé qu'ailleurs, reste inférieur à celui de Suisse, d'Italie et d'Allemagne Toutefois il est supérieur à celui enregistré aux États-Unis, en Grande-Bretagne, en Belgique, etc. Le fait est très important au point de vue de la capacité de concurrence industrielle vis-à-vis de ces pays. Sans doute M. Duchemin ajoute que "la situation de la France n'est pas, au point de vue du coût de la vie, plus désavantageuse qu'elle ne l'était avant la guerre." A quoi il convient de répondre que la France fortement industrialisée depuis 1914 (métallurgie, textiles, produits chimiques) a normalement besoin d'exporter plus qu'avant la guerre.

† Fin mars, 1933, l'encaisse se trouve ramenée à 80,7 milliards, ce qui prouve une fois de plus que la thèse de "l'accumulation systématique" du métal jaune par la Banque de France est fausse. Les capitaux affluées en France, pays du moindre risque, commencent à refluer surtout en Angleterre; la Banque de France se conforme strictement à son statut monétaire en achetant et en vendant l'or au prix légal.

Dans la même période, les engagements à vue (billets et dépôts) ont évolué ainsi:

fin 1928	81,7	milliards fr.	dont	62,2	milliards de billets
fin 1932	107	,,	,,	82,7	,, ,,
fin mars 1933 ..	105	,,	,,	84,8	,, ,,

En même temps que la circulation fiduciaire a augmenté, le mouvement des affaires a diminué. Ainsi le volume du chiffre d'affaires a baissé de 33 % de fin 1928 à fin 1932. En effet, d'après les statistiques fiscales, le rendement de la taxe sur le chiffre d'affaires est descendu de 755 millions en décembre 1928 à 505 millions en décembre 1932. La constance du volume des billets en circulation, alors que les besoins monétaires diminuaient, n'a-t-elle pas ralenti la baisse des prix de détail qui n'est que de 17 % depuis 1929 contre 36 % pour les prix de gros?

Nous estimons que les prix de détail n'ont guère été influencés par le volume monétaire, d'abord puisque sa vitesse de circulation a diminué, ensuite parce qu'il y a eu thésaurisation. Un indice de la thésaurisation des billets nous est fourni par la variation respective des grosses et des petites coupures. Le montant des billets de 500 et de 1,000 francs, particulièrement aptes à être conservés dans le coffre-fort ou le bas de laine, a augmenté de 18 milliards depuis décembre 1928 jusqu'à fin 1932, alors que les petites coupures de 5 à 100 francs, en augmentation d'abord jusqu'en 1930, ont baissé depuis de 2 milliards. Cette conservation improductive des billets par les particuliers, qu'on peut estimer à 20 milliards environ, s'accompagne d'une thésaurisation de l'or. En 1931 et 1932 l'augmention de l'encaisse-or de la Banque de France est restée inférieure de 10 milliards environ aux entrées d'or en France. Ce montant peut encore être considéré comme "réfugié" entre des mains improductives.

Tout compte fait, le montant et la vitesse de circulation des instruments monétaires effectivement utilisés, ont diminué depuis 1929 dans une proportion comparable à celle du mouvement des affaires. Sans tomber dans l'erreur de donner à ces indices une valeur plus qu'indicative et sans par ailleurs faire intervenir la théorie quantitative qui a été démentie plus d'une fois par les faits, au moins sous sa forme rigide, il faut donc chercher à la résistance des prix de détail une cause extramonétaire.

Nous croyons la trouver dans la répercussion sur le coût de la vie et des droits de douane et des salaires. Le protectionnisme agricole particulièrement développé (en matière de blé, de viande, de beurre, etc.) affecte directement les prix de détail.

En second lieu, la France a été contrainte, par la pénurie relative de main-d'œuvre, à maintenir ses salaires et traitements à un niveau relativement élevé:

INDEX DES SALAIRES (1913 = 100) VILLES SANS PARIS

	1926	1927	1928	1929	1930	1931
Hommes						
Salaires horaires ..	700	720	750	831	887	887
Salaires journaliers ..	584	593	617	680	730	729
Femmes						
Salaires horaires ..	809	787	856	982	1,052	1,052
Salaires journaliers ..	668	648	701	804	864	862

Après la stabilisation du franc, la hausse des salaires a continué pendant 2 années encore surtout sous l'influence de la phase de prospérité qui ne s'est terminée qu'en 1931. Il est à remarquer que les salaires des femmes, très en retards par rapport aux salaires des hommes, se sont vigoureusement redressés depuis la guerre. La baisse intervenue depuis 1931 a varié de 5 à 10 %, ainsi dans les mines de houille on payait par jour 38,99 fr. en 1931, 37,61 fr. au premier et 35,31 fr. au 3ème trimestre 1932. Dans l'industrie des métaux à Paris le salaire horaire des ouvriers qualifiés n'a été ramené que de 6,61 fr. en 1931, à 6,22 fr. en automne 1932. Parallèlement les fonctionnaires ont opposé à la réduction de leurs traitements une résistance violente.*

En définitive, on ne peut pas prétendre que la France aurait cherché systématiquement à amortir l'offensive de la crise mondiale par une politique d'autarchie et de hausse des prix. Malgré le protectionnisme et le contingentement la France est encore suffisamment solidaire de l'économie internationale pour avoir subi intégralement la baisse des prix mondiaux. Quant au coût de la vie, la France n'a pas réussi jusqu'ici à l'adapter aux prix de gros et à cet égard elle a éprouvé des difficultés semblables à celles rencontrées par l'Angleterre jusqu'à la dévalorisation de la livre sterling.

Dans ces conditions l'attraction que l'économie française a exercé sur les capitaux extérieurs ne s'explique pas du tout par des conditions de rémunération exceptionnelles que celle-ci aurait été capable d'offrir. Malgré un taux d'intérêt très bas, les capitaux ont rencontré des difficultés croissantes de se placer. Ceci résulte d'abord, à côté de la thésaurisation, de l'augmentation des dépôts quasi improductifs dans les 4 grandes banques et celle des dépôts dans les caisses d'épargne qui tirent leur rénumeration encore intéressante des titres de la dette publique en lesquels ils se convertissent en fait. Ceci résulte encore de la faiblesse du portefeuille commercial des banques, de la lassitude du marché financier et de la faiblesse des émissions par l'économie privée.

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* La loi du douzième provisoire du ler mars 1933 n'impose aux fonctionnaires qu'une réduction minime qui ne dépasse pas 5 % en moyenne.

Le retard et la moindre intensité de la crise en France s'expliquent donc avant tout par les particularités de la structure de l'économie française, en premier lieu par la souplesse de la population active et par la prudence des chefs industriels. Mais la France n'a pas pratiqué-aussi peu que les autres pays—une politique dynamique d'atténuation de la crise. Ceci résulte très nettement de l'expérience des prix.

Alors que les prix de gros ont baissé aussi violemment en France que dans les autres pays, il n'a pas été possible d'adapter à cette baisse le coût de la vie. Il en résulte pour la France une difficulté croissante de comprimer le prix de revient suffisamment pour conserver sur les marchés d'exportation la situation qu'elle avait péniblement acquise depuis la guerre. Il y a la un facteur de prolongation de la crise qui donne à réfléchir.

De politique économique consciente il n'y en a eu que dans le domaine social. La France reste un pays équilibré parce qu'elle a réussi à conserver à son agriculture une force humaine suffisamment importante pour contrebalancer la population industrielle croissante, remuante et, comme le montre l'expérience d'autre pays, souvent responsable des troubles sociaux. C'est là le vrai sens du protectionnisme rural qui coûte cher à l'économie française. Mais est-ce trop cher pour assurer la stabilité dans l'évolution rapide de la vie économique et politique contemporaine?

Parallèlement, la France a réussi à conserver une large place aux classes moyennes que l'inflation avait particulièrement menacées. Le niveau assez élevé du coût de la vie en France montre que l'appareil distributeur du moyen et petit commerce y est intact et avec lui le noyau même des classes moyennes. Car les nouvelles couches de ces classes, représentées par les employés et les fonctionnaires, se trouvent plutôt en marge des classes moyennes dans la mesure où par le syndicat elles sympathisent avec ce qu'on appelle le prolétariat.

Cet équilibre social constitue beaucoup plus que le prétendu équilibre économique le trait caractéristique de la France contemporaine. Le terme "ilôt heureux," dont on gratifie volontiers la France, emprunte son sens beaucoup plus à cet ordre social au milieu des bouleversements politiques au Sud et à l'Ouest qu'à la résistance du pays à la crise économique.

PRIX, MONNAIE ET CRÉDIT

JEAN LESCURE, *Professeur à la Faculté de Droit à Paris*

La période de guerre nous paraît avoir obscurci et faussé les notions de monnaie, de crédit.

En ce qui touche les prix et leurs variations, on a cru pouvoir reléguer au second plan la loi de l'offre et de la demande, négliger les variations des valeurs, pour placer au premier plan l'action des quantités de monnaie.

On a, d'un autre côté, confondu monnaie et crédit. On a identifié quantité de monnaie et quantité de crédit. On a prétendu régler par le contrôle du crédit les variations des prix et l'activité économique toute entière.

Cette double erreur mérite d'être redressée. Car elle inspire des mesures de politique économique très critiquables.

Toutes les notions, de ce chef, sont brouillées et nos difficultés présentes tiennent en grande partie à ces confusions, car les abus du crédit occupent dans la genèse et l'évolution de la crise contemporaine une place considérable.

Au surplus une erreur de diagnostic appelle une erreur de politique économique. On voudra demander au crédit et à la monnaie des services, qu'ils sont incapables de rendre. On prétendra par une politique de crédit et d'inflation provoquer un relèvement des prix du blé et des matières premières.

⁂

Les perturbations des prix s'expliquent, à notre avis, par le jeu de la loi de l'offre et de la demande. Pendant la guerre, dans la plus large mesure, la hausse des prix s'explique de même: et *l'inflation s'est bornée à aider le jeu de la loi de l'offre et de la demande.*

La guerre a provoqué une demande illimitée et à n'importe quel prix de toutes les marchandises. La hausse des prix en est résultée. Il nous a été donné par le hasard des circonstances d'observer au Cabinet du Ministre de la Guerre cette hausse des prix. Sans parler des munitions, qui dès novembre accusent une hausse égale à quatre fois le prix d'avant-guerre (l'obus de 75 passe de 20 fr. à 80 fr.) les prix des marchandises haussent en tous pays. Ils haussent même aux États

Unis, où l'inflation est inconnue, sous l'influence de la demande européenne.

Mais cette hausse des prix, qui a son origine dans la demande, sera bientôt accélérée et intensifiée par la raréfaction de l'offre. La mobilisation, en progressant, raréfie la main-d'œuvre; la production ralentit en Europe. Un second facteur provoque une nouvelle hausse.

L'État, principal acheteur de toutes ces marchandises, les achète à crédit: il emprunte de toutes façons: à long terme, à court terme; il emprunte des billets à cours forcé. Le crédit autorise la hausse des prix, qui a sa cause dans l'accroissement de la demande et la raréfaction de l'offre. *L'inflation est effet. Elle n'est pas cause.*

Sans doute la hausse des prix va provoquer une hausse des revenus. Et les ouvriers et les capitalistes disposant de revenus plus substantiels dépenseront plus largement. La hausse des prix se propagera et progressera. Mais la hausse des prix n'a pas son origine et sa cause dans l'inflation; l'inflation a sa cause dans la hausse des prix.

Cette précision nous paraît essentielle, pour apprécier la place rationnelle de l'inflation dans une politique de hausse générale des prix. A l'heure actuelle nombre d'économistes aspirent à promouvoir une hausse des prix des produits dépréciés à l'excès (blé, coton, laine, cuivre) par une politique d'inflation. Là, semble-t-il, est leur erreur. Ils confondent l'effet evec la cause.

Les États-Unis ont tenté en 1932 de provoquer une hausse des prix en mettant à la disposition du marché une quantité croissante de monnaie. L'échec a été total. La loi de l'offre et de la demande a pris sa revanche, sans le dire: les stocks continuaient à gonfler, établissant jusqu'à l'évidence, qu'il ne suffit pas de mettre de la monnaie en circulation, pour que les prix montent.

En réalité la hausse des prix ne saurait provenir, que d'un renversement de la relation offre-demande. Et l'on pourrait, à vrai dire, tenter d'agir sur l'un et l'autre de ces facteurs. Telle semble d'ailleurs être l'intention du Président Roosevelt.

Objecte-t-on, que la baisse du dollar sur le marché des changes a été accompagnée par une hausse des prix, nous répondrons, que cette hausse est de date trop récente, pour pouvoir être appréciée. Les doutes les plus sérieux peuvent être émis au sujet de son avenir. Car cette hausse est survenue dans des conditions bien définies: l'Amérique a perdu confiance dans sa monnaie. Les stocks d'or ont été menacés du dedans, et non du dehors. *On a thésaurisé l'or.* Après la suspension de l'étalon or la thésaurisation d'or est devenue impossible: elle est même frappée de sanction. Le public, dont la méfiance subsiste, *thésaurise les marchandises*. De là la hausse des prix du blé, du coton, du cuivre. . . . Cette augmentation de la demande n'est d'ailleurs pas le fait de l'inflation. Le bilan des Federal Reserve Banks n'accuse aucun accroissement de circulation: de nombreuses banques restent fermées. Il y a donc, pour le moment, déflation et non inflation. Mais il y a annonce d'inflation. Cette menace provoque la méfiance vis-à-vis de la monnaie. Les marchandises sont plus demandées. Les prix montent. Mais les quantités de monnaie sont absolument étrangères à cette hausse. Il s'agit là d'une action psychologique bien connue. La spéculation anticipe les évènements.

Mais cette agitation des prix exprime-t-elle une augmentation de la consommation, une reprise de l'activité économique? Voilà le nœud du problème. Or *les achats spéculatifs se traduisent par un déplacement et non par une diminution des stocks*. Le Farm Board, au moins on l'assure, a réussi à liquider ses stocks à la faveur de cette poussée spéculative. Nous voulons l'admettre. Mais les stocks ainsi transférés ne sont-ils pas désormais aussi menaçants—et même davantage—pour l'avenir des prix, que s'ils étaient restés en mains fermes. A vrai dire, la baisse des prix ne peut être efficacement et *durablement* maîtrisée, *que par une augmentation de la demande et de la consommation, ou par une restriction de l'offre*.

L'annonce de la première étape de la politique américaine pourrait donc laisser très sceptique au sujet de son succès: décrocher le dollar du métal or, le dévaluer, émettre 3 milliards de dollars de papier, autant de mesures capables de susciter la méfiance du public et de provoquer *la fuite* devant la monnaie. Moyen incapable de réduire les stocks, ce qui est le nœud du problème.

Les États-Unis souffrent, eux, d'une crise classique survenue en 1929, ayant son origine dans le création d'une puissante industrie automobile, mais aggravée par des abus de la spéculation et du crédit. Cette crise classique, cyclique, périodique, éclate à une époque de surproduction des produits agricoles (blé, sucre).

Les États-Unis ont donc deux problèmes à résoudre: la longue surproduction du blé—la surproduction cyclique. Pour réussir, on doit agir sur cette double surproduction, mais par des procédés adéquats. Nous voulons dire: en agissant sur la demande, sur l'offre.

La dépression cyclique, qui pèse si lourdement sur la métallurgie américaine s'explique comme toutes les dépressions antérieures du même ordre par l'abstention des capitaux disponibles. *L'épargne ne se* *place pas.* Ce qui est neuf, ce qui est grave, c'est que l'épargne est effrayée à ce point, qu'elle se cache: on thésaurise.

Normalement, en période de dépression les capitaux cessent d'être créateurs, parce que les perspectives de profit sont peu favorables. La reprise survient, lorsque l'avenir autorise l'espoir d'un bénéfice par l'utilisation des épargnes dans la production. A l'heure actuelle la situation est bien plus grave. Non seulement l'épargne ne se place pas. Les émissions de titres sont tombées à des chiffres ridicules. Mais l'épargne méfiante se transforme en métal ou en marchandises.

EMISSION DE TITRES AUX ÉTATS-UNIS
MOYENNE MENSUELLE

Millions $

1929	849	1931	260	Janvier 1933	65
1930	585	1932	99	Février 1933	20

On doit remonter très loin dans l'histoire, pour retrouver des phénomènes de cette gravité. Mais, aussi bien, comprend-on la profonde dépression de la métallurgie, qui travaille à 20–30 % de sa puissance de production. *Les commandes font défaut.* Voilà le centre de la crise. Et le centre de la crise n'est pas dans la surproduction, comme on le répète trop souvent. Ici, *on ne produit pour ainsi dire plus*—et cependant *l'offre l'emporte sur la demande.* C'est *la demande, qui s'est contractée, parce que les épargnes ne se placent pas.*

Est-il besoin d'ajouter, que la baisse du dollar est appelée à rendre les capitaux plus méfiants encore, et qu'à ce titre, la baisse de la monnaie et l'inflation sont capables d'aggraver et de prolonger la dépression. Voilà pourquoi la politique du Président Roosevelt permettait les craintes les plus fondées au sujet de ses résultats. Elle voulait d'abord la hausse par l'inflation. C'est la demande, qui fait défaut par suite de la méfiance de l'épargne.

Mais la politique américaine, après avoir comporté une première série de mesures: réduction du poids du dollar, augmentation de la circulation, annonce une deuxième étape: *on dépenserait* 3 *et peut-être 6 milliards de dollars à effectuer des travaux publics.* Si l'on songe qu'en 1929, année de prospérité maxima, les émissions de titres ont atteint environ 8 milliards $, on se rend compte de l'ampleur des travaux publics envisagés par le Président Roosevelt. *L'État se substitue vraiment et complètement à l'initiative privée défaillante.* L'État va-t-il, comme à la déclaration d'une guerre, passer des commandes massives à toutes les industries? La hausse des prix en résultera. Et l'inflation fournira à l'État les moyens de paiement nécessaires pour régler ces commandes. Le mécanisme de hausse des prix sera amorcé. Comme en 1914–1918 la hausse gagnera, se propagera, grâce à l'augmentation des revenus de tous les producteurs.

Toutefois une objection s'impose: Et après? Après l'exécution de ce plan de travaux publics? Si la baisse du dollar a été suffisante, si tous les producteurs sont allégés de leurs dettes par la faillite monétaire, on peut envisager une période de reprise normale, les possibilités de bénéfice ayant reparu, grâce à l'allègement des dettes. La monnaie serait stabilisée par rapport à l'or. La confiance renaîtrait, comme en France en 1927 et 1928. L'épargne privée, à nouveau, se placerait dans l'œuvre de la production.

Sans doute l'ensemble du problème ne serait pas encore résolu. On produit trop de blé, de sucre, de café, parce que la guerre a provoqué une exagération des cultures, parce que la disette a stimulé l'ingéniosité des producteurs, provoqué une meilleure efficacité des efforts de l'homme. Mais l'essor industriel né de l'exécution du plan de travaux publics serait capable de modérer les effets de la surproduction agricole: la consommation des produits agricoles augmenterait. Et au surplus le Président Roosevelt envisage une réduction tout à fait recommandable des emblavures dans le monde.

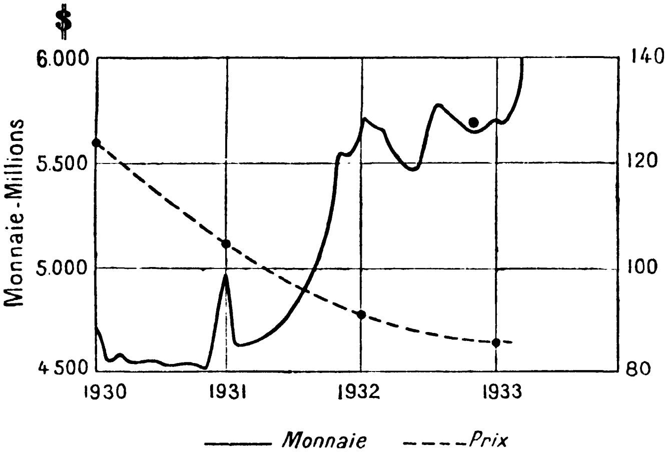
Tel n'est d'ailleurs pas le sujet que nous prétendons aborder dans cette brève étude. Notre ambition est plus limitée. Nous prétendons ***rétablir à sa juste place la loi de l'offre et de la demande dans l'explication des variations des prix.*** Exagérer le rôle de la monnaie, et même le méconnaître, en assignant à la monnaie la première place dans l'examen causal des variations des prix, c'est, à notre avis, commettre une erreur scientifique, capable de conduire aux plus sérieux mécomptes en matière de politique économique. C'est en réduisant les stocks qu'on agira sur la hausse des prix. Et c'est en agissant sur l'offre et sur la demande qu'on réduira les stocks.

* * *

Dans le domaine de la monnaie et du crédit, on a commis également des confusions, qui méritent, elles aussi, une mise au point. On confond aujourd'hui très couramment monnaie et crédit, sous le prétexte que la monnaie est monnaie fiduciaire. Par une politique rationnelle de la monnaie et du crédit, on aura l'ambition de stabiliser les prix. Il y aura une école de la monnaie dirigée, de la "managed currency." En réglant les quantités de monnaie par une politique adéquate de crédit, on ferait obstacle soit à la hausse, soit à la baisse des prix.

Cette politique a été pratiquée depuis la guerre par les Federal Reserve Banks, par la Banque d'Angleterre. Les évènements lui ont donné le plus sérieux démenti. La baisse catastrophique des prix de 1929 à 1933 procède en période de pléthore monétaire et de surabondance de crédit.

MONNAIE ET PRIX AUX ÉTATS-UNIS



Indice général des prix*

1913 = 100

1930		123·8
1931		104·6
1932		92·8
1933	Jan.	87·4
	Feb.	85·7
	Mar.	86·2
	April	86·5

* *Bulletin Statistique.*—S.D.N.

En vain, a-t-on essayé par une politique de crédit à bon marché et d'augmentation de la circulation de provoquer une hausse des prix et une reprise économique. Une erreur théorique doit être sous-jacente à cette politique.

En réalité l'erreur maîtresse nous paraît résider dans *la confusion de la monnaie et du crédit.* Monnaie et crédit sont deux notions complètement distinctes—et la politique de la monnaie ne saurait être confondue avec la politique du crédit. Cette confusion est l'œuvre de la guerre et des pratiques regrettables qu'elle a imposées. Avant la guerre monnaie et crédit étaient nettement distincts. Et les excès du crédit n'avaient pour ainsi dire pas de répercussion dans le domaine monétaire. De nos jours la confusion des deux notions a pour conséquence le retentissement sur la monnaie des erreurs commises dans le domaine du crédit. Car depuis la guerre, *le crédit crée la monnaie.* C'est un abus contre lequel on ne saurait trop protester et qui est à la racine même des faillites monétaires. *La pléthore monétaire fait apparaître une distance croissante entre la masse de monnaie fiduciaire et les stocks d'or.*

La masse de monnaie fiduciaire crée la méfiance à son égard. De là des "runs" sur l'or, qui ont provoqué la faillite de l'étalon or.

Expliquons-nous. La monnaie doit être définie *l'instrument d'échange, mesure de la valeur.* La monnaie de métallique est devenue fiduciaire. Mais la monnaie fiduciaire: billet ou dépôt suppose d'abord l'apport à la Banque d'une quantité correspondante de monnaie métallique. La création de monnaie n'est donc nullement arbitraire. Et les Banques sont impuissantes à créer de la monnaie.

A un deuxième stade, la Banque Centrale d'émission crée de la monnaie, à *l'occasion d'opérations bien délimitées*: escompte et avances. Mais *cette création de monnaie est sévèrement réglementée.* Et à ce stade de l'évolution, *les banques de dépôt exigent un apport de métal ou de billets de banque avant de créditer un client et de lui remettre un carnet de chèques.* La Banque Centrale donne à la circulation, par ce procédé, *l'élasticité* indispensable. Elle crée de la monnaie—mais elle en crée seule. Elle est toute puissante dans ce domaine. Elle en crée de petites quantités.

Le *crédit*, digne de son nom à cette époque, consiste à *déplacer les capitaux disponibles*, à les transférer des mains des personnes incapables de les utiliser entre les mains des producteurs. Mais *le crédit ne crée pas de monnaie nouvelle* pour satisfaire des besoins supplémentaires nés de l'activité des transactions. Il se borne à déplacer la *monnaie existante* et dont la quantité en circulation est réglée de façon souveraine par la Banque Centrale.

La guerre a ouvert un 3ème stade, où la monnaie est créée par toutes les banques, et *notamment par les Banques de dépôt.* Il nous paraît superflu d'insister. C'est cette pratique qui a provoqué le triplement des dépôts aux États-Unis, alors que la production a augmenté seulement de 30 % par rapport à 1913. En Europe l'abus est beaucoup moindre. Il existe cependant.

EUROPE (INDICES S.D.N.)

	Indice de la production	Montant des dépôts Millions $	Indices des dépôts
1913	100	9,304	100
1928	114	15,705	168
AMERIQUE DU NORD			
1913	100	8,732	100
1927	128	25,800	300

Désormais *crédit et monnaie sont confondus.* Par le crédit on crée de la monnaie. Là réside la confusion fatale. Car la quantité de monnaie définit le pouvoir d'achat; et il n'y aura plus de limite à l'augmentation des pouvoirs d'achat. Un dollar servira de couverture à 10 dollars-crédit. Ces nouvelles pratiques seront extrèmement dangereuses. L'État ou son délégué officiel, la Banque Centrale, seront dépossédés de leur souveraineté dans le domaine monétaire. Et la monnaie courra les mêmes aléas que le crédit. En multipliant les instruments d'échange par le crédit, on faussera les conditions de l'équilibre économique. On va dérégler tout le mécanisme de l'équilibre économique automatique. On multipliera les germes et les possibilités de crise.

L'équilibre économique repose sur un système de vases communiquants: les marchandises s'échangent entre elles; elles s'échangent contre les services; les services s'échangent entre eux. Le fonctionnement harmonieux de l'organisme économique suppose *un même niveau pour le prix des marchandises et le prix des services.* Car le prix mesure le pouvoir d'achat. Toute modification brusque, brutale dans le niveau des prix des marchandises ou des services provoque une rupture d'équilibre. Car les pouvoirs d'achats respectifs cessent d'assurer une circulation correcte des marchandises et des services. Si le blé baisse brusquement et profondément, l'agriculteur achète moins de produits industriels. Si le coût hausse plus rapidement que le prix de vente, l'esprit d'entreprise disparaît: il y a crise cyclique. Les perturbations, qui provoquent des désordres graves dans l'équilibre sont avant tout et surtout des perturbations des valeurs et des prix. L'expérience démontre que les fluctuations des quantités sont beaucoup plus modérées que le mouvement des valeurs et des prix. En cas de dépression économique, les réductions de la production sont beaucoup plus limitées que la baisse des prix. Et si les crises présentent une telle gravité c'est qu'à une modification modeste dans les quantités correspond une modification beaucoup plus accusée de la valeur et des prix. De même les perturbations dans les mouvements des prix font obstacle aux mouvements des échanges. Malgré l'apparence, les crises ne sont pas le resultat des mouvements généraux des prix; mais *les crises naissent de la divergence dans le mouvement des prix*, qui provoquent des perturbations dans les échanges et entraînent la baisse généralisée des prix. La confusion entre la monnaie et le crédit va amplifier encore les mouvements divergents des prix, qui sont à l'origine des perturbations des échanges et des crises. La spéculation ne connaîtra plus de frein. Elle faussera tous les marchés.

Avant la guerre, lorsque le dépôt en Banque suppose une épargne antérieure, un dépôt en métal ou en billet de banque, la quantité de monnaie c'est-à-dire de l'instrument d'échange, mesure de la valeur, ne varie que sous l'action de la production du métal et de l'émission des billets de banque. En cas de développement de la production, de hausse des prix, les instruments d'échange s'adaptent aux besoins accrus en augmentant leur vitesse de circulation ou par une augmentation de la circulation billet de banque. En fait les variations dans les quantités de monnaie sont assez faibles. Elles ne présentent une certaine ampleur qu'à considérer des époques assez éloignées. Elles augmentent au même rythme que la production et de pair avec la hausse des prix. *La prospérité économique commande l'augmentation des quantités de monnaie. Et cette augmentation est indépendante de l'augmentation des stocks d'or.* L'examen des statistiques l'établit.

	Banque Nationale de Belgique Millions F.		Reichsbank Millions M.		Banque néerlandaise Millions Fl.	
	Encaisse	Circulation	Encaisse	Circulation	Encaisse	Circulation
1876	130	333	510	684	156	187
1890	105	382	801	983	119	208
1876–1890 (+ ou −)	− 20	+ 59	+ 291	+ 299	− 47	+ 21
1900	107	576	817	1,138	128	228
1910	179	826	1,203	1,782	158	294
1900–1910	+ 72	+ 250	+ 326	+ 644	+ 30	+ 66

Le cas de l'Allemagne notamment est typique. Pendant la brillante période d'essor de 1900 à 1910 l'encaisse or augmente de 300 Millions Mks (arrondis) et la circulation billet de 650 Millions Mks.

Le développement de la production conjuguée avec la hausse des prix a rendu nécessaire cet accroissement des stocks monétaires. Le billet a donné à la circulation monétaire (instrument d'échange) *l'élasticité* nécessaire.

Par contre la guerre a transformé le billet de banque et le dépôt en instruments de crédit. *On a créé des billets et des dépôts indépendamment de toute augmentation de la production*, sous l'influence de la hausse des prix. Les États ont réglé leurs dépenses en papiers monnaie (billet ou chèque) et provoqué la création à cet effet des billets et les dépôts nécessaires. L'équilibre économique a été profondément modifié.

Les produits au lieu de s'échanger contre les produits s'échangent contre des promesses de payer (emprunts d'État à court, à long terme, billets de banque). *La monnaie cesse de jouer le rôle exclusif d'instrument d'échange; elle devient un instrument de crédit.* Cette confusion est capable de troubler gravement l'équilibre économique: car *la production perd tout régulateur.* Le prix, notamment, cesse de jouer son rôle régulateur par suite du recours au papier monnaie et au chèque-papier.

Avant la guerre le dépôt supposait une production (de marchandises, de services antérieures). De même le billet de banque. Et les produits s'échangeaient contre les produits. Dans le domaine de l'échange et de la valeur on pouvait répéter "rien ne se perd et rien ne se crée." *Les dilations de la production commandaient à celles de la monnaie.*

Depuis la guerre en contre-partie d'avances, d'hypothèques, de fonds d'État (dont la masse a plus que décuplé du chef de la guerre), d'obligations, on a créé des dépôts en banque, dont le public peut disposer par chèques. *On a donc créé une masse monétaire pléthorique.* Toute limite raisonnable a disparu à l'augmentation de la production, à la spéculation, à la demande des produits.

De là cette extension sans précédent de la production agricole. Le fermier trouve, sur hypothèque, tout le crédit nécessaire pour mettre en culture de nouvelles terres et perfectionner ses méthodes de culture. Et le crédit est si abondant que les États-Unis au même moment peuvent fournir à l'Europe et principalement à l'Allemagne, tout le crédit nécessaire pour reconstituer sa production. La production du Nouveau Monde se superpose, grâce à ces artifices, à celle de l'Ancien. Dans bien des cas *on produira trop et les prix s'effondreront*, laissant apparaître les abus nés de la confusion de la monnaie et du crédit. La baisse des prix tenant à l'exagération de la production, au gonflement des stocks va transformer en mauvaises créances tous ces dépôts artificiels, nés de nouvelles méthodes bancaires. Après l'inflation de la guerre, l'inflation de la paix, avec des conséquences analogues: dettes impossibles à acquitter. Dettes de guerre, dans le premier cas, dettes de reconstitution dans le second. Dettes les unes et les autres, consacrées à des dépenses improductives.

Baisse massive des prix d'une part, dettes massives improductives, tels sont les deux caractères de la période de guerre et d'après guerre, qui expliquent dans la plus large mesure l'insolvabilité des banques, des débiteurs, les crises monétaires d'après guerre.

On a confondu la monnaie et le crédit, l'épargne et l'inflation. On a ainsi créé une période artificielle de prospérité en maintenant, après la guerre, *une demande de produits indépendante de toute production préalable.* Les produits ont continué à s'échanger contre des promesses de payer au lieu de s'échanger contre de la monnaie métallique ou contre *de la monnaie fiduciaire supposant une épargne antérieure.*

Une liquidation s'imposait. Deux méthodes étaient concevables: la déflation—la dévaluation des monnaies. On a choisi partout, de gré ou de force, la seconde méthode. Il n'est désormais pour ainsi dire aucun pays ayant échappé à la faillite par la monnaie.

Il serait trop long de discuter des mérites respectifs de ces deux politiques. Le vœu que nous devons former c'est de voir progresser cette liquidation aux États-Unis dans les meilleures conditions. Il sera alors possible de retourner aux saines méthodes. Il sera possible de rétablir l'étalon or, base de toute monnaie internationale digne de ce nom, fondement indispensable du crédit, garantie de l'épargne.

Mais les banques instruites par l'expérience devront à l'avenir éviter la confusion néfaste de la monnaie et du crédit. *L'élasticité* devra être soigneusement séparée de *l'inflation.*

Sans doute la distinction entre la notion d'élasticité et la notion d'inflation peut, au premier abord, paraître délicate. En théorie la frontière est relativement simple à fixer.

L'élasticité peut être définie l'extension de circulation monétaire commandée par le développement en quantité et en valeur de la production et des échanges. L'essor économique exige l'élasticité de la circulation monétaire.

L'inflation peut être définie une augmentation de la circulation monétaire indépendante de ce développement. Demande de marchandise en cas de guerre, demande après guerre en vue de la reconstitution, et en tout temps demande *tenant à la spéculation sont également capables de provoquer une inflation monétaire c'est-à-dire une augmentation de la circulation n'ayant aucun antécédent dans l'essor du monde économique.* Les billets sortiront; ils ne rentreront pas; les dépôts seront créés; ils ne seront pas remboursés. Le crédit n'aura pas été utilisé en vue de créer de nouvelles richesses. Il y a *passif sans actif correspondant.* La monnaie est en porte-à-faux. Le papier, le dépôt sont des titres creux.

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Pour sortir de difficulté à l'heure actuelle, il importe au premier chef de ne pas confondre prix et monnaie; monnaie et richesse. Le mercantilisme avait commis cette erreur. Elle est réfutée depuis plus d'un siècle.

Pas davantage on ne doit confondre monnaie et crédit, prétendre régler la monnaie par le crédit, et diriger, à l'aide de la monnaie et du crédit, la production. Le rôle animateur appartient à la production et aux besoins, à l'offre et à la demande, aux mouvements automatiques des *valeurs* (et des prix), qui résulte de l'action réciproque de l'offre et de la demande.

L'équilibre économique est à ce prix. La monnaie et le crédit sont capables de le fausser. Ils sont incapables de le régler.

Mai 1933.

THE CONCEPT OF INCOME

ERIK LINDAHL, *College of Economics, Gothenburg*

THE main essentials of the concept of income have perhaps been most clearly laid down by Irving Fisher in his well-known definitions: "A *stock of wealth* existing at a given *instant* of time is called *capital*; a *flow of benefits* from wealth through a *period* of time is called *income*."* According to this, income consists of certain benefits accruing during a definite period of time, and further, these benefits arise from the employment of wealth; legacies, gifts, and the like are considered as falling outside the concept of income.

In order to give expression in one comprehensive measure to the size of these benefits, they are best considered as *amounts of exchange value*. It is simplest to base these calculations on the market prices during the period to which the estimation of income refers and subsequently to allow for changes in monetary purchasing power. Thus income is regarded as a concept of value; this applies also to the term "real income," by which is simply meant income expressed in some unchanging monetary unit.

The following is designed to show that, starting from these premises, it is possible to arrive at alternative definitions of scientific importance which should be kept quite separate.

I. INCOME AS CONSUMPTION

This is Irving Fisher's own concept which he expounds in the following way. The benefits which constitute income consist of the *services* obtained from capital goods during a certain period, services from human beings included under this head. The problem of how to avoid double counting, when adding up those services which result in new capital goods and those services which flow from these goods, is solved in this manner: the capital-producing services are credited to the capital goods that deliver them, but at the same time they are debited to the resulting new capital goods; they are therefore excluded from the net income obtained from the total capital stock. The net income consists only of the services for the said period which are debited to various persons as consumers, that is to say, which enter into their consumption and thereby lead to the satisfaction of wants.

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* Irving Fisher, *Elementary Principles of Economics*, New York, 1919, p. 38. Cf. his earlier fundamental work, *The Nature of Capital and Income*, New York, 1906.

Irving Fisher's analysis is carried out in masterly fashion, but all his attempts to demonstrate that his concept of income is the usual one and that it is the only logical one, must be considered unsatisfactory. In neither popular nor scientific terminology are income and consumption equated; on the contrary, income is generally taken to include saving (either positive or negative), and the crux of the matter is to decide just what this term saving may be taken to cover. It should also be possible to construct quite logically a concept of income to include saving, starting from the same premises as Irving Fisher.

In that case, however, it is best to distinguish between *anticipated income*, which refers to a certain period forward, and *income obtained*, which is reckoned after the termination of the period in question. The first of the following concepts is of the former type, the two others of the latter.

II. INCOME AS INTEREST

This concept, reduced to theoretical simplicity, may be taken as referring to the continuous *appreciation* of capital goods owing to the time-factor, that is to say, the current interest on the capital value which the goods represent. Income in this sense stands in quite a different relation to the concept of capital as against income regarded as a stream of services. The expected future services of the capital goods are the basic factor in the estimation of capital value, for the latter can be considered equal to the sum of the anticipated value of these services, discounted at the current rate of interest, due reduction also having been made for the risk factor. Capital value must again be the starting-point for the estimation of income as interest, that is to say, as the appreciation which arises when the discounted future services come nearer and nearer—an increase in value which for a given period forward can be regarded as the product of the capital value and the rate of interest applying to the period. We thus arrive at a quite different and in a certain sense secondary concept of income. But the term income in this case is quite as justifiable as in the former, for the continuous appreciation due to the time-factor can fairly be regarded as a "flow of benefits from wealth through a period of time."*

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* The above-given deduction of the concept of income from Fisher's own premises, Fisher himself has chosen to disregard. He lays it down emphatically that the term income should be reserved for the stream of services on which

If services created by one group of capital goods are invested in another, a certain amount of value is thereby transferred. The total value of the capital stocks is not necessarily affected by such a procedure. If, on the other hand, the services created pass directly into personal consumption, a corresponding diminishing effect on the total capital value may be expected. During a given period of time, this reductional in value through consumption may be less or greater than the contemporaneous appreciation due to the time-factor. These differences between interest and consumption anticipated for a certain period can be regarded as the *saving*, positive or negative as the case may be, which takes place during the period. But it should be pointed out that the net increase in capital values, in which saving expresses itself, need not correspond to the actual change in value during the period, for, through more or less unforeseen circumstances, the capital values may at the same time undergo other more discontinuous changes in the shape of gains or losses (see below).

Income as interest can thus be said to correspond to the total *sum of the consumption and the saving* expected to take place during a certain period, the element of saving being expressed in the increase in value of the capital, exclusive of gains and losses.

Here it is assumed that the concept of income as interest is to apply generally, that is to say, not only as regards produced capital instruments, but also as regards land and labour, analogically with the

the estimation of capital value is based, and should not, therefore, be taken to cover the appreciation of capital goods: "Clearly, then, increase of capital is not income in the sense that it can be discounted in addition to other items of income. If it is income at all, it is income in a peculiar sense, and nothing but confusion can result from having to consider two kinds of income so widely divergent that whereas one is discounted to obtain capital-value, the other is not" (*The Nature of Capital and Income*, p. 249). He thus lays himself open to the charge of inconsistency in making the term capital include all increase of capital, even such increases as arise through the accumulation of interest: "Daraus folgt, dass Ersparnisse und Wertvermehrung immer Kapital und nicht Einkommen sind" (*Der Einkommensbegriff im Lichte der Erfahrung*, in *Wirtschaftstheorie der Gegenwart*, Bd. III, Wien, 1928, p. 28). This obviously runs contrary to his fundamental postulate, according to which capital consists of value at a given *instant* of time. The interest which applies to a *period* of time is in the nature of a time stream and cannot, from this point of view, be dragged into the concept of capital; it is clearly income. It is, moreover, significant that Fisher himself employs the terms "earned income" and "standard income" for this concept, which he contrasts with his own concept of income, "the realized income." The conflict is to be solved in this way: that we clearly distinguish two different categories of income—income as a "flow of services" and income as a "flow of capital value."

comprehensive concept of capital developed with such success by Fisher, Fetter, and others. Interest can, then, no longer be regarded as a special income-category side by side with rent and wages: on the contrary, all forms of income are to be taken as current interests on the corresponding capital values. If, in accordance with the traditional definitions, rent and wages are taken as the value of services supplied during a certain period, an addition should consequently be made for any increases in value which these factors of production have undergone by reason of a surplus of accumulated interest, and alternatively, deductions should be made for any decreases in value that may have arisen as a result of the value of the services supplied exceeding the interest.

If it is considered desirable to adhere more closely to the conventional concepts, the most satisfactory compromise would be wholly to disregard changes in the capital value of labour. By way of justification, it may readily be urged that since the abolition of slavery it has not been necessary to set a capital value on human labour-power, except in the way one estimates the solvency of an individual when advancing him credit. In this case the total income emerges as the sum of the current interest on all capital, exclusive of human capital, and the value of the labour-services during the period. But from this sum a deduction must be made for expenses incurred in bringing the workers up to the requisite standard of efficiency (provided that these expenses do not at the same time conduce to personal satisfactions). Otherwise double counting will arise, as in the calculation of wages no deduction corresponding to the amortization of these expenses is made. Consequently the saving included in the calculation of income only corresponds to external capital goods; capital in a personal form is left out of account.

It does not matter so much which of these constructions one chooses, provided only that it is carried to its logical conclusion. In both cases a concept of income emerges of great value from the point of view of theoretical analysis; for, referring to a certain period forward, it allows a quite consistent determination of the much debated concept of saving as one of the price-determining factors for the said period. For statistical purposes, on the other hand, this concept of income is less useful, as it is based to such a great extent on subjective factors, not statistically computable.*

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* It should be understood that this calculation of interest is undertaken by the owners of the capital and is, accordingly, based upon their own individual

The question arises, therefore, how may we widen the usefulness of the concept of income for statistical purposes, without too big a sacrifice of its theoretical preciseness.

III. INCOME AS EARNINGS

The simplest procedure would perhaps be to add together income as interest and the gains and losses which arise during the period to which the calculation of income applies. Income in this very wide sense would thus be calculated as the sum of the actual consumption and the increase of capital value which has taken place during a certain period. Both these items could be treated statistically, especially if human beings are excluded from capital stock. For this concept of income, the term used in this paper is "earnings."

The concept earnings, understood in this sense, has the great merit that its compass can be determined in a quite obvious way. It has therefore proved of great use in business economics, and in certain cases it has been used (though in a somewhat modified form) as a basis for assessing the taxation of income, e.g. in the case of the federal income-tax of the United States of America. It is, accordingly, of interest to investigate the theoretical significance of the points of divergence between this concept of income and the one discussed just above, i.e. the nature of the before-mentioned gains and losses.

If the future could be completely foreseen, so that future streams of services and the rates of interest at which they should be capitalized were known beforehand, the total value of the capital stock could only be changed by the element of saving as defined above, that is to say, the difference between the interest income and the consumption. On this supposition, income as earnings (actual consumption plus apprecia-

anticipation of yields and their own judgment and valuation of the risk factor. Also the rates of interest at which the estimated yields of future periods are discounted, and the rate at which the current interest on capital is estimated, are not the same for all persons, as the conditions of making and receiving loans are fixed in different ways. Further, it should be borne in mind that both the capital values and the rates of interest may change as time goes on; so that the total current interest for so long a period of time as a year should be calculated as a sum of the interests during the shorter periods of time during which the capital value, no less than the rate of interest, can be assumed to remain unchanged. (As regards the calculation of current income from work, this presents no difficulties as far as it is contractual in character. A calculation of other kinds of income from work must again be based upon an anticipation of unascertained items, that is to say, upon subjective factors as in the case just considered.)

tion of capital stock) would correspond to income as interest (anticipated consumption plus saving).

Actually, however, as the future is only anticipated as a series of more or less probable alternatives, the determination of capital values becomes dependent on a number of factors which change as time goes on. Thus the expectations of future services clearly change their character the nearer the time comes for these services to fall due. At the same time the estimation of the risk factor will undergo modification. The result of this will not necessarily be a change in capital value, as these changes in effect may neutralize each other. But, as a general rule, it may be assumed that changes in the factors of capitalization will be accompanied by greater or smaller changes in the capital values themselves. These discontinuous changes in the value of capital stock, dependent as they are on the fact that individuals, through unforeseen circumstances, find themselves obliged to modify their capitalizations, are what have here been termed "gains and losses."*

From the above it follows that, for the reasons given, the classification of gains and losses as positive or negative items of income for the period in which they occur is hardly satisfactory. For here it is not a question of a flow of benefits through a *period* of time, but of changes which occur at certain *instants* of time (that is to say, when the owner of capital goods changes his estimation of its value) and thus, strictly speaking, have no time dimension. Consequently these instantaneous changes should not be reckoned in with the saving which occurs during a certain period either, as the term saving should really be kept for the refraining to consume income. Instead, we may assert that the gains and losses constitute *adjustments* of the estimation of savings which have been realized during *preceding* periods, because the anticipation of the future, upon which every attempt to estimate the savings must be based, changes in nature with the passing of time. These adjustments of the existing capital values have of course a quite different economic meaning from an increase or reduction in capital value through an excess or deficit of current interest in relation to consumption.

The conclusion must be, then, that the concept earnings, understood in the above-determined sense, is inclusive of elements which must be kept separate in a theoretical analysis. This concept, therefore, hardly provides an ideal solution of the problem of how to arrive at a concept of income that will be both tenable theoretically and practically useful at the same time.

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* Cf. Gunnar Myrdal, *Prisbildningsproblemet och föränderligheten* (*The Pricing Problem and the Change Factor*), Uppsala, 1927, where the distinction between incomes and costs on the one side and gains and losses on the other is considered fundamental in the treatment of the problem of profits.

IV. INCOME AS PRODUCE

In this case, income is defined analogously to the concept of production. Net income becomes identifiable with the net value which the owners of the factors of production receive as remuneration for their contributions to the productive process. This net value is usually defined as the difference between the value of the product realized during the period and certain items which have been reckoned as products of previous periods and therefore must be deducted to avoid double counting.

In the majority of cases, income in the practical sense is understood in this way. In business economics and tax law, this concept of income, the "income produced," is more favoured than the concept of income we have just discussed, the earned income. It lies at the base of most computations of the national income, and corresponds roughly to what, in the language of daily life, usually goes under the name of income.

It is to be regretted, therefore, that this concept of income cannot be defined in such unambiguous terms as the concepts which have already been dealt with. In determining the plus and minus items which are included in the income calculation for a certain period, different principles are often applied, so that the content of the concept is apt to vary within rather wide limits. These variations can be brought into line with each one of the three concepts of income dealt with above: in determining the positive items the choice lies between the consumption concept on the one hand and the interest and earnings concepts on the other; as far as the negative items are concerned, one has to choose between the two latter concepts.

As regards the calculating of the positive items, an approach is made to the first alternative—income as *consumption*—according as to whether we insist that only finished products should be reckoned in the value of production. The more it is insisted that the reckoned products should be considered as marking the climax of the productive process, the more will the income calculus for these products tend to be postponed to the consumption period. The agreement between income as consumption and income as produce would clearly be complete if only the products consumed were reckoned as positive items, in which case there would of course be no negative items.

If, again, the positive items are not limited to finished products in the technical or economic sense, but are taken to cover all services rendered during the period, the net value of the production will be equal to the whole increase in value of the capital stock, which results from the productive process. In this case we come nearer the two other concepts of income (interest and earnings).

The minus items are, in the produce concept of income, calculated in a different way from that of Fisher. He, as mentioned above, subtracts all capital-producing services during the period when they are furnished. Here, on the contrary, they are not deducted until the periods during which the capital goods concerned are utilized. Thus income as produce will cover not only consumption but also the amount by which the production of capital goods exceeds the capital consumed. The capital consumed can, however, be calculated in different ways. Approach may be made in this connection either to the concept of income as earnings or to the concept of income as interest.

The concept of *earnings* we approach, according as the deductions for raw materials and the depreciation of capital instruments are based on the original costs of production. If (owing to unforeseen circumstances) the value of these goods subsequently rises or falls, the gain or loss which this change in value implies is, by this method of calculating, partly reckoned in with the net income. The gains and losses, however, cannot be so fully accounted for as in the concept earnings as above defined. In the first place, as regards the durable capital instruments, the gains and losses are not reckoned in the income for the period during which they take place. They are, on the contrary, spread out over all the periods during which the capital is used, since the amounts written off, which have been determined by the original costs, are too high or too low in relation to the later values. It is to be noted, further, that gains and losses referring to land and capital instruments which are not being used up and for which, therefore, no deduction is made, do not enter into the calculation of income at all.

In so far as these deductions, on the other hand, are calculated according to the prices for the current period and are thus based not on the original but on the actual cost of production, income as produce will tend to correspond to income as *interest*. In this case capital gains and losses will not be included in the income: the income will correspond to the net value earned during the period, due deduction having been made for the actual diminution in value of the capital instruments caused by the productive process. This diminution can, for a durable capital instrument, be defined as the amount by which the value of the services rendered exceeds the accumulated interest on the capital value during the same period. If this amount is written off, that is to say, deducted from the positive item, i.e. the value of the services rendered, the accumulated interest emerges as the net income.

Even so, this correspondence to the income as interest concept can never be regarded as complete. Firstly, all appreciation due to the time-factor is not counted as produce. In so far as this appreciation does not apply to the product but to the factors of production, it can only be included in a somewhat incomplete way by fixing the deductions for the using up of capital. Further, the calculation of income as produce is made after the termination of the period concerned, whilst income as interest applies to a certain period forward. Consequently gains and losses referring to the interest realized during a certain period (not the capital proper) are included in the latter but not in the former concept.

For various practical purposes it is perhaps possible to defend different variants of the produced income concept. But from the point of view of theoretical analysis there can be no doubt as to which of the variants is most satisfactory. An approach to the consumption or the earning concept leads to mere compromise which should be abandoned in favour of the fundamental concepts, consumption and earnings. These concepts, moreover, could be turned to good statistical use. An approach to the interest concept—which implies that all services rendered during the period are reckoned as positive items and that the negative items, referring to services furnished during previous periods, are reckoned according to, not the original, but the actual costs of production—has, on the other hand, a more definite theoretical content: that the produced income is the interest which is realized during a given period.

The result of this investigation is, then, that for a certain period forward the anticipated interest, and for a period reckoned backward the produce in the sense of realized interest, is the most adequate expression of the income idea. According to this, saving can be defined as the difference between the anticipations of interest and those of consumption, and realized savings as the difference between realized interest and actual consumption during a given period.

FINANCIAL ORGANIZATION AND THE PRICE LEVEL

A. LOVEDAY, *Geneva*

A DEBT of gratitude is owing to all those economists who in the early years of the present century and the last decade or more of the nineteenth directed special attention to the social risks of wide price fluctuations and to the problem of the recurrences of periods of economic depression.

The magnitude of those dangers has been all too tragically borne in on us during the last few years. But whether the full significance of what has happened and its implications for the future have yet been, or indeed can be, fully apprehended is much more open to doubt. We are all perhaps too much inclined to believe that once we emerge from the slough and mists of the present depression we shall be able rapidly to devise means for averting similar disasters in the future. The belief is natural enough; for what is simpler than to attribute everything that seems bad, from our own psychosis to the price of wheat, to the war? Once the book-keeping of the war is closed, it is argued—once the burden of treaty debt is finally wiped out or adequately lightened and the world has had time to stretch its muscles—we are not likely ever again to be so beaten down in times of peace. This opinion is widely held even by those who may be amongst the least hopeful concerning the immediate means of escape from our troubles. But without being open to the accusation of adding ultimate pessimism to immediate misery, the grounds for this belief may be considered to demand very careful sifting.

We may not—we do not—know the causes of the recurrence of periods of depression; but we do know many of the factors that contribute to their severity, and we should be able to take measures to counteract or weaken at least certain of them. Of these factors perhaps the most important is the dissimilarity of the duration of different classes of contract. The greater part of the national income of a highly developed State is divided amongst the population of that State contractually. Those contracts vary in length from that of a surgeon who may in any hour contract to sell his skill in the next, to that of the landlord who lets his house on a ninety-nine years' lease.

When prices and the national income expressed in money values diminish, the money claims represented by the contracts remain unchanged; the contractors who have received a money claim obtain a greater share of the national dividend and others obtain less. When contracts are for short periods, as, for instance, those for weekly wages, the shift in the distribution of income may be nugatory or nil. They can be changed as rapidly or almost as rapidly as the prices of commodities move. But when they stretch over a period of years, or when rapid change is in practice difficult, they must affect the distribution of income and thus of purchasing power.

A general fall in prices must tend to reduce profits which are variable and wages to the extent that they are variable; to the extent that wages are not it will increase unemployment instead. As unemployment increases the quantum as well as the value of the national income will diminish. Those benefiting from long contracts—enjoying so-called fixed incomes—will obtain a constantly increasing share of an income which may thus tend to diminish on account of both of the factors of the product.

The effect of such a change upon economic activity will depend on the manner in which society is organized. If those with long contracts—the landowner or the bond-holder—constitute a section of society largely distinct from the entrepreneur and the wage-earner, then the demand for goods will shift from the great necessities of life to other consumption or may be to capital goods. The increased demand by the rentier class may in part offset the reduced demand of the entrepreneur. To the extent that that happens is industrial organization unaffected. But, in fact, it is more probable that demand for all classes of goods will slacken. The rentier is likely to be less conscious of an increase in his income when that increase comes about indirectly through a fall in prices, than when it is due to a direct increase of his money income. He may in consequence be less inclined to increase his consumption and thus automatically save more. But the willingness to invest tends to weaken when commodity prices and profits are falling and the demand for goods shifting uncertainly, so that the savings may lie idle and prices be still further affected.

It is not my purpose here to attempt to sketch this rake's progress of declining prices. The point which I desire to throw into relief is, that in a financial organization such that claims on national income vary less readily than do prices of goods, the rigidity of those claims itself constitutes a contributory cause of further price declines. The greater the proportion of monetary fixed claims in society as a whole the greater the danger.

In the international field the effects of such fixed claims are still more serious, because when prices fall the transfer of wealth from debtor to creditor that has to be made is not within the country. It is not the distribution of a national income that is affected directly, but its amount. A larger slice must be cut off the national income of the debtor state and handed over to the foreign creditor.

The difficulties and dangers described may be met either by preventing a fall in prices occurring or by loosening and lessening the financial and other rigidities. Opinion has hardened rapidly in the last few years, and with good cause, in favour of devising measures for stabilizing prices after an initial rise from to-day's levels has taken place. How far a policy of price stabilization will prove successful must remain for the future to determine. But at least it is clear that to neglect the other side of the problem, to fail to take measures to remove financial or other rigidities, in the blind hope that some magic trick will be found for replacing the price fluctuations of the past by a horizontal line projected indefinitely into the future, would be imprudent.

If those responsible for financial policy fail to adopt measures with the deliberate intention of reducing rigidities, there would appear to be but little reason to believe that the financial organization will automatically become more supple.

All investors are inevitably influenced by two contradictory desiderata—that of making as large a profit as possible and that of obtaining the greatest measure of security for their capital. When industrial and commercial undertakings were privately owned these two principles affected the policy of the individual owner, but so long as the owner was employing his own capital they only affected the community as a whole when some passing influence swayed owners in the aggregate from a relatively conservative to a relatively speculative policy, or vice versa. They did not affect the community by modifying the financial mechanism itself—by making it now rigid, now flexible, Whatever their effect on policy, risks within the community were evenly spread so long as the business worked with its own capital. In recent years the joint stock system, under names varying with the law in different countries, has replaced to a constantly increasing extent the more personal enterprise. Under it the spreading of risks has come to depend largely on the extent to which those who saved were prepared or enabled to purchase debt or equity. Gradually with the growth of the big industrial concern, with the extension of the multiple shop, with the bridging of the ravines which isolated markets, a greater and greater proportion of the population has been thrust out of positions of direct, independent control into the mass of wage-earning and salaried classes. Such persons can no longer invest in themselves; to the extent that they play for safety or apparent safety, and give preference to fixed interest-bearing obligations over profit-sharing equities, they inevitably add to the rigidity of the financial system. Many forces have induced them to prefer safety to profit.

The composition of the investing class in most countries has changed. With the elimination of big fortunes through inflation or other national disasters, with the application of progressive taxation in overtaxed states, with the decay of the great landlords, capital has become more evenly distributed and the small capitalist is necessarily less willing to assume risks than the great. He is, moreover, less able to control. Ownership of industry—through shares—is to the small investor divorced of all reality of ownership. He cannot influence policy; whatever his ideals may be, he cannot through his individual will determine the lives of the human beings which that industry represents. He may gain or lose—he cannot control. Of the sense of immediate responsibility to which ownership should give rise he is deprived, and the desire to own which that sense engenders cannot be his. If he purchases equities, it is for profit alone—it is a form of gambling, less risky perhaps than horse-racing and less crude than cards. But it is a form of gambling for which the small is much less suitably equipped than the large capitalist. The individual stake is too high, and because it is too high the small investor cannot spread his risk. The large capitalist may devote one-tenth of his capital to purchasing common stock in a score of different companies, the profits on two or three of which may wipe out all losses. The small investor may have to place the whole of his tenth in one concern—and he is likely to be ignorant. How, indeed, can he choose between the rival recommendations of the financial tipsters in the daily press or interpret the obscurities of balance sheets "taken as read"? As national income increases and more and more concerns are devoted to meeting that vacillating demand that now throbs and now relapses into quiescence, once the major needs are met, his difficulties increase and, failing to overcome them, his chances of the large compensatory profit diminish.

It is natural that in such circumstances there should have been a tendency to prefer fixed interest-bearing securities to equities, and that natural tendency has been strengthened by changes in financial mechanism and in the character of the demand for capital.

The first instinct of the small investor in such circumstances is to leave his money on deposit or savings account. In a few countries the banks have endeavoured to change the form of such deposits by inducing the public to take up shares or to diminish them by converting bank overdrafts into new share capital. But in the majority of countries in post-war years there have been no such efforts, and the deposits have been employed directly by banks to grant advances or finance overdrafts to industry. This has proved, as it was inevitable that it should prove, doubly dangerous. The industries have been financed by debt, and the banks have, for the most part, borrowed short from the public, and, whatever the form of their advance, in fact lent long to industry. They have not confined their loans to financing materials in process, but have allowed them to be used for the purchase of equipment, or the extension of plant. The fixed claims on industry have proved an intolerable burden when prices fell, and in the final analysis the risks of industry, once the pad of profits had spent its resistance, were concentrated upon the banks. In place of the self-liquidating bill we find to-day the self-liquidating bank.

This accumulation of deposits by banks has been facilitated by the high rate of interest which banks could offer owing in part to the scarcity of capital, but owing in part also to the circle of the system itself. As the obverse of the high rates on deposits were to be found high rates to industry on advances—rates involving sums which had to be deducted before profits could be calculated. To industry the system of financing by debt in such circumstances meant lower profits and to the investor a reduced comparative advantage in the purchase of profit-bearing equities.

Of scarcely less general importance and internationally of much greater importance has been a still more profound change in the financing of industry. Throughout the whole of the present century there has been a steady growth in the share of total industrial activity undertaken by the State or other public authorities. The railway companies have been converted into State undertakings; the tramway companies, the gas companies, the electric lighting companies into municipal undertakings; more and more goods are transported over roads constructed with public money; more and more private capital is being absorbed by governments, local and central. Where the capital is sought abroad, it is obtained by the sale of fixed interest-bearing obligations, not by the flotation of a foreign company, the issue of shares, or the granting of a concession. The undertakings are thus financed by debt and the whole community becomes the debtor. When prices fall the debt obligation remains unchanged in terms of money, and to meet it a greater quantity of goods has to be sold abroad. Had the undertakings been financed by equities, the transfer of commodities required in times of serious depression would in all probability have been less, not greater, for profits would have been lower. The effect of State financing in its present form is thus to increase the burden on the country when the country is least able, and to decrease it when the country is best able to bear it.

In recent years the rates of interest on capital have not only been abnormally high, but have, owing to local capital scarcity, varied widely from country to country. An abnormal opportunity has thus been afforded to those who sought high returns to obtain them while investing in a form of security with ostensibly "fixed interest." The attention of the risk bearer has thus been diverted from a form of security by means of which his willingness to share risks lessens the strain on the fisc and the exchanges when income falls to a form under which the risk materializes only after the strain with all its social consequences has proved intolerable.

How far may we expect then that those financial tendencies of post-war years which have rendered economic society less adaptable to changes in economic activity and in the level of prices will continue in the future? There has been a reduction in the total monetary value of fixed claims on the social income resulting from conversions schemes, the depreciation of the currencies of certain creditor States, the elimination or suspension of certain forms of treaty obligations, bankruptcy, (either of the debtor or the creditor) and temporary or definitive arrangements between creditor and debtor. If prices rise the world may thus find itself with a lighter burden to shoulder. But it is not the static situation at any given moment of time that should be considered, but the probable development over a period of time.

Will the system of financing industry by debt, either through banks or public authorities or by means of debentures, develop or decay? It is reasonable perhaps to expect that for some time after economic recovery has started capital will continue to rule very much lower in price than it did between 1918 and 1929. To the extent that happens will the relative attractiveness of both fixed interest-bearing securities and of bank deposits, as compared with equities, have diminished. Further, the losses on international bonded securities have been so great that the power to borrow—almost irrespective of price—will almost certainly be very substantially weakened even when the world economic machine rotates once more. But man is by nature a forgetful animal and, though it may be expected that the manifold defaults of indebted Governments may for a time render domestic equities more attractive than foreign bonds, it is probable that after a relatively short period of reluctant hesitation the small, conservative, and ignorant investor will once more be tempted by the high, differential rates of so-called fixed interest at which the loans of States with inadequate domestic savings must inevitably be floated. The investor rarely realizes what proportion of "fixed interest" rates represents a premium against risks; the premium in consequence is rarely adequate.

But considerations such as these relate to the variable phenomena of price, risk, and confidence. More important in the long run is the probable development of social organization and financial machinery.

There is no reason for assuming that the importance of the small investor will diminish; nor is it likely that he will very rapidly or to any very marked extent be able or willing to increase his share of conscious risk bearing. There are, it is true, certain signs of industrial decentralization—of the growth of small local units of industrial output able to compete successfully with the large centralized industries weighed down by their fixed overhead charges. It is possible that as national income increases and demand becomes more scattered and turns more to quality or specialized articles, further opportunities for the small producers of distinctive articles may present themselves, and that the small investor may be able to devote part of his capital to purchasing a share in such local undertakings. But, if such development actually takes place, it is likely to be slow and hesitant. If any substantial improvement in the system of financing is to be effected in democratic societies, some means must be devised for permitting the investor to spread his risks or for modifying the nature of fixed debt claims.

The insurance company, the investment trust, and the holding company all contribute their share to the solution of the problems that beset the small investor. But the insurance company makes its benefits in part or in whole conditional upon the demise of the policy holder, and is itself, moreover, a large-scale debitor at fixed rates. The holding company may well seem to the investor to keep too many of its eggs in too few baskets. The founders of investment trusts have so frequently chosen the most inopportune moment of inflated boom prices to float their companies as to have created a not inexplicable feeling of mistrust.

It would be unwise to dogmatize concerning the form of organization required. The most appropriate form is likely to vary from country to country; but it is, I think, evident that in almost all countries some mechanism for spreading risks is required, and much educational work will have to be undertaken in order to persuade both the public and the banks that some change is essential and that facilities can be devised. It is during the period of depression that such changes can most suitably be initiated and that such existing legislation as at present hampers them can most suitably be modified. With whatever success endeavours to build up the requisite mechanism for spreading the risks inherent in the purchase of equities may ultimately be crowned, it is certain that in the great majority of countries the process will be a slow one. Not only have the nerves of confidence been racked in recent years, but the disaster that has overtaken industry has been so overwhelming that the investor dependent upon his unearned income will necessarily argue that, however well he might have selected his shares, he would have been compelled to suffer an intolerable reduction of income had he placed his reliance wholly or indeed mainly upon equities. He can scarcely be expected to take into consideration the extent to which the present crisis might have been mitigated had there been less financing by means of debt. Further, the so-called commercial banks over the greater part of Europe are too habituated to acting as *banques d'affaires* to change readily or perhaps even to realize fully the need for change. A long process of education will be required before any substantial improvement can be expected.

The development of some mechanism for spreading risks, moreover, would do little to solve the international problem. It is for this reason that it has been suggested by certain writers that a clause might be introduced into international loan contracts under which the service or a part of the service of the debt should vary with changes in an international price index. Such a suggestion would seem to involve two difficulties, one of a theoretical, the other of a practical order. Price is the expression of the value of goods in certain defined currencies. An international price index, in order to be calculated at all, must incorporate prices in terms of a number of currencies. It is at least doubtful whether such an index would have any meaning, whether, that is, it would measure anything subject to definition in terms of an appropriate instrument of measure. Is it more possible to measure any commodity in terms of francs and dollars than to measure the weight of pig iron by means of a (weighted) average of unconverted pounds and kilos? Secondly, even if we are courageous enough to assume, for the sake of argument, that an answer can be found to these theoretical questions, what prospect is thère that that answer will be sufficiently comprehensible to the layman to induce him to stake his money on it? But nothing is more difficult than to foresee what the public will believe, and it must not be taken as excluded that the obscurity of the meaning of an international index, if meaning there be, would preclude its utilization.

This proposal can claim the advantage that it is applicable to any sort of bond. But it does not constitute by any means the only method by which greater suppleness might be given to international financial operations.

There are no apparent grounds for assuming that the tendency for public bodies to enlarge the scope of their undertakings will be reversed. But public control and enterprise need not necessarily involve financing by means of debt. They are in no way necessarily incompatible with the formation of public utility companies capable of issuing their own shares. Indeed, in recent years quasi-independent public utility companies have been created by a number of Governments. The objections to such a procedure where foreign capital is required are, however, not inconsiderable. On the one hand, the borrower is naturally unwilling to surrender completely to foreign control some essential national public service; on the other, the foreign capitalist is no less naturally hesitant about sinking his capital in an enterprise which may well be conducted rather in the interests of the community as a whole than in that of the shareholder.

If no compromise between these conflicting considerations can be found, it may prove necessary to devise some new form of mortgage security the dividend or interest on which is dependent on profits and constitutes a claim ranking prior to any other dividend.

The owner of such a security would, like a mortgagee or debenture holder, not be concerned with the conduct of the business; he would have the advantage over an ordinary shareholder in a foreign company that his right to interest would rank prior to the payment of any dividends, and the dual advantage over these and preference shareholders that he would be a creditor in the event of liquidation or reconstruction, and that no claim ranking prior to his could be created. It is not necessary to enter here into the many technical questions to which the creation of some such new form of security would involve. The essential desiderata are that its service should reflect in some automatic manner the capacity of the undertakings, and through the aggregate of undertakings of the country to pay, while assuring to its owner the greatest possible degree of security of income. Thus a certain proportion of the coupon service might be definitely fixed; a condition might be made retarding the rate of amortization in bad times before the coupon was affected and accelerating it in times of prosperity. The essence of any such innovation should be elasticity.

Securities of this character could not, of course, be employed for the purposes of Government loans, the proceeds of which were intended for instance for currency stabilization or for public works such as road construction, which could not be conducted on a profit-earning basis.

The criterion for economic international loan transactions should be that the proceeds of the loan could be so employed as to increase both the national income and the transfer capacity of the country by an amount at least equal to the total service of the loan during the whole period of its currency. When the proceeds are employed on non-profit earning undertakings the most rudimentary elements for applying this criterion are lacking, and the world is likely rather to gain than to lose if changes in financial organization or habit make the raising of such loans more difficult.

ENTERPRISE AND THE TRADE CYCLE

D. H. MACGREGOR, *All Souls College, Oxford*

1. **Realistic** studies of the trade cycle are concerned to explain a particular phenomenon which has occurred, and therefore they collect and seek to co-ordinate such data as can be measured. They are sometimes criticized as being inconsequent, on the ground that no number of historical series is a real explanation, and that such explanation must be derived only from a theoretical analysis of the structure and inherent influences of private enterprise. As the study which follows would be called realistic, it may begin by a statement why I do not accept the latter point of view.

It is an economy of effort to seek to understand what has happened, and continued to happen, rather than something which might happen, or might have happened. What purely theoretical analysis of competitive influences can supply is the demonstration of tendency; but it is subject to the difficulty that a large number of such tendencies may be demonstrable. It cannot show that it has considered all the possible influences or all the possible relations between them. A number of theoretical demonstrations why the course of private enterprise should be a fluctuating one may all be true together. Any particular theory only proves that there is one key which may fit the lock, but not that other keys may not fit it also. It cannot be theoretically shown that a clue is the only clue, or that the total number of possible clues has been exhausted. Theory is not independent of statistics, for it is not satisfactory until it has numbered all the possible theories, and reached a conclusion by the method of rejection. It is practically never in a position to do this. Hence A, B, and C may all be right in their general theory of fluctuation, each supplying a certain intellectual exercise in deductive economics.

These theoretical explanations of cyclical development, which oppose themselves to realistic studies, would also be seriously embarrassed if the thing for which they offer a strictly necessary explanation were to cease to happen, and become a historical episode, policy and structure continuing generally as before, but organization, knowledge, and communication taking a larger part. This would be the case with such a theory as explains the cycle as a necessary result of the passage from barter relations to those of money and credit, treating this explanation as necessary and sufficient.

No theory contains the proof that it has exhausted the possibility of alternative explanations. All pure theories have, therefore, an inherent statistical problem of their own. The recourse to realistic study is necessary in order to define the range within which theory is applicable to what did, as compared with what might, happen. It does not dispense with theory, but with some theories.

Both realistic and deductive treatment of the trade cycle differ from what may be called *tracings*. These start from a point, usually a point of depression, and trace the course of events up and down the slope. They also differ from *contingencies*, according to which there is no cycle, but a series of historical disturbances having different causes.

2. This paper is a realistic study, in that it seeks further to define the field of applicable theory by the examination of further data which are sufficiently recurrent to exclude contingency. It is the residue of a study of which other parts suffered the fate of supplying no results.

The enquiry turns upon the question whether any indices of business *enterprise* can be added to the other indices of the trade cycle, and whether any further light can thereby be thrown on the theory of that cycle. It is concerned with British conditions, and mainly with positive matters of fact.

A number of indices of the trade cycle have usually been included in the demonstration of the "pulse of the nation." Of these, some may be called primary and some secondary. Among the primary indices there must certainly be reckoned those of employment and prices. It is significant of the nature of the cyclical influences that prices and employment should vary in direct relation to each other, since high or rising prices might also be accompanied by, and in fact cause, restrictions on employment. Their direct relation is indicative of the fact that fluctuation is concerned with changes arising primarily from the side of demand. Among secondary indices we ought to include the Bank Rate, if that rate has been administered mainly with a view to protecting a gold reserve, because it will then reflect the movement of prices; it would be different if the Bank Rate had been administered as a regulator of prices. Also, among secondary indices are such as follow almost necessarily from the state of employment, for example, a higher marriage rate, or a larger per head consumption of some staple articles of common consumption. These do not contribute any new facts regarding the state of the conjuncture to an analysis of its significance. Some indices are secondary in the sense that they count over again what is included in a primary index; for example, the capitalization of joint-stock companies involves prices.

But it is plain that both prices and employment are themselves the results of some condition of enterprise, and that there is a gap in the substance of the data in the absence of some index of enterprise. It may be assumed that there cannot be more employment without an expansion of enterprise, but it is, none the less, important to fix as far as possible the tendencies of enterprise of which employment and prices may be taken as the natural manifestations. To get to the bottom of the tendency called industrial fluctuation, we must use the most original index available, and this appears to be that of the formation and expansion of business enterprises.

No use seems to have been made so far of the evidence available for this purpose in the data of the formations of joint-stock companies. Some use was made by Aftalion of the increase in the paid-up capitalization of existing companies. That is, however, the net result of formations and liquidations and, apart from the fact that prices are involved in capital values, it cannot be assumed that formations and liquidations are correspondently related to the course of the trade cycle. It can be shown that in England they are not. It is preferable to separate them for study, and also to use the number rather than the capitalization of the enterprises formed or expanded. It is the number of enterprises which best shows the spread of the influences at work. Therefore, the indices from which I have sought to obtain further information are those of company formations and liquidations* for the period for which they are available, which begins about the middle of the sixties of last century.

3. Before going further, some comments should be made on the general question of the fluctuation which is the definition of the trade cycle.

Some indices are rates or percentages, and these do not necessarily have a trend in a progressive society; the facts of the growth of population, and of the magnitude of the actual figures which follow from that, are allowed for in a rate. The rate of unemployment is an index of this kind. Between 1860 and 1913 it has a fluctuation, but it has only a slight trend, and the figures can be used as they are given. Some rates do have a trend, such as those applying to the liquidations of businesses. That trend is, then, a social fact of new significance, and different from the trends which are simply the result of national growth as a whole. It is of new significance, apart from national growth, that the risk of labour, as measured by the rate of unemployment, did not have the same downward trend in the comparable period as did the risk of capital, as measured by rates of business failure. But indices derived from figures of growth, such as the figures of new enterprises, show only a relative position in relation to a trend, and the value of such indices, as cyclical indices, has been questioned.

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* In another study.

These indices are obtained as the ratio of each annual figure to the average of a number of years of which it is usually the centre. They show whether the original figure for a given year was *relatively* high or low; they are not dynamic indices of growth, but static indices of magnitude. Their purpose is to eliminate some persistent influence which is not what is being studied, but which causes a trend of the original data; such as the growth of population or of the supply of gold. There must be a known factor which it is reasonable to eliminate for the purposes of the study in question. The number of years on whose moving average the index of each particular year is based may be derived from observation of any direct indices which enter into the study, that is, from the average period of a fluctuation of those indices; in trade cycle theory, the index of employment is taken as the basis of reference. The index against the moving average of a trend is comparable with the absolute figures of a rate, or direct index, because a rate has eliminated trend influences in another way by placing them in both its numerator and its denominator.

Professor Cassel says that "if we start from a curve representing an average rate of progress, actual development naturally must be represented by a curve that alternately rises above and falls below the curve of uniform development. This is logically involved in the very conception of an average rate of progress. The existence of such a wave-like motion, therefore, does not require any particular explanation. I should like to underline that. It is obviously useless to undertake a tremendous work to discover a general explanation when in fact no such explanation is wanted."* If there *must* be a fluctuation, then the cycle is only a fact of arithmetical manipulation. But is this so? All that will follow arithmetically from indices taken against a moving average is that the sum of the positive differences from the trend line will be approximately equal to the sum of the negative differences. This is not the condition of a period of *fluctuation*; it may give a movement which is quite irregular about the trend line. Trade cycle theory may be illustrated by contrast with variations of a moving index which do *not* show fluctuations. For example, we might take the variations of a seven-year moving index of the shipwrecks of British ships, and of emigrants from Britain to places outside Europe. The former variation is due to random chances of weather, the latter to the mixture of reasons, some arising out of distress and some out of enterprise, which cause emigration. The former has eighteen one-year changes of direction in thirty-seven years, the latter shows some tendency to fluctuate, but with strong interference. Both may be contrasted with the derived indices which are given later, and which do show fluctuation.

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* *The Crisis of the World's Monetary System*, p 35.

Fluctuation is fundamentally a physical idea and, when it is applied to social affairs, it means that mass results have certain regularities in their changes. What are the regularities of wave motion which give it its definition? I suggest the following. Fluctuation is more perfect according as (1) the index does not change its direction upwards or downwards between the successive high and low points which are taken as defining the fluctuation, (2) between such high and low points the index always crosses the base or trend line, (3) the envelope of the successive high points and that of the successive low points (the curves freely drawn through these points) are related to each other by convergence, divergence, or parallelism, (4) there is a period, in some unit of time, between successive high or low turning-points, which is adequate to the notion of the development of an influence. These conditions follow from the analogy which is being used. There is displacement, and a force seeking equilibrium; the equilibrium cannot be reached by maintaining the displacement, if the whole mass is not increased or diminished in proportion. If it has not so varied, a displacement in either direction must be compensated by another displacement in the opposite direction. This is obvious in physical fluctuation. In the fluctuation of employment or enterprise, the effective amount in any period of time is not such that a high or low displacement can be equilibrated at these points, but each must be compensated by recovery of the mass average. This is a statement of forces, not an identical proposition. Because of it, the fluctuation must have a period which gives these forces room to readjust.

Direct indices are liable not to satisfy the third of the above conditions so well as derived indices, because there is a resistance to their movement downward; they cannot go below zero, and they meet a practical minimum. Derived indices have a more free fluctuation as percentages of their average, since this has allowed for everything.

But the third condition is one of a perfection of fluctuation not often to be expected.

In the period here considered, the direct index of unemployment, and the derived indices of enterprise and prices, satisfy in a high degree the other conditions. This is obvious at a glance, the exception being the break in the price index between 1873 and 1879, which are years taken as high and low points.

4. Between the indices of enterprise, employment, and prices theoretical relations can be argued; it might seem that enterprise would follow prices, and that employment would follow enterprise. Or it might seem that prices should follow enterprise; or that this relation might be different in depressions and in booms of trade. Before discussing the factual verification of this question, which is important to realistic theories of the trade cycle, some comments have to be made on the indices themselves.

(*a*) Before the war, only one index of unemployment was available, the Trade Union sample percentage, which is to be taken in its "corrected" form, so as to give rough weighting between industries of larger and smaller fluctuation. No such fundamental index is available for so long a period for any other country. It is out of the average period of fluctuation of this index that we get the number of years which should be averaged to give corresponding indices of prices and enterprise. The Trade Union figures are strictly valid only as an *index* of fluctuation, but for what are called the main groups of mining and manufacturing industries (excluding services) they are apparently a fair *measure* of unemployment. They do not include agriculture. The average of the index is 4·4 %, so that, if the measure is approximately correct, the proportional change in employment is about one-twenty-fourth of the proportional change in this index. The index has a "good" fluctuation. Between high and low points it only once changes direction, and then only to a slight degree (1896–97). There is no appeal to any other index of unemployment, as contrasted with the case of prices, where there are three indices to check against each other. After the war, the Trade Union figure is quoted on a declining sample of industries until 1926, and is much affected by the coal-mining disputes; excluding the years of these disputes, it fluctuates in the same way as the official index under the Insurance Acts, and this slight test confirms it as an index of fluctuation. What is more important is that its proportional changes at the turning-points are generally decisive enough. It is uncertain whether 1889 or 1890, and

1908 or 1909, is a turning-point, but it must be one or other of these in each case. Of the twenty-two ratios of change at the other eleven turning-points, only four are below 10 % (taking a point in the second decimal place), and the lowest is 6½ %. This is more obvious in a logarithmic curve than on the usual graph. Thus the change from 0·95 in 1872 to 1·15 in 1873 is a decisive change, though the figures are low. It is on this general "acuity" of the curve that we have mainly to rely in accepting its critical points.

But the omission of agriculture is important, if the unemployment index is to be compared as regards critical points with indices of prices which are strongly influenced by agricultural values. Agriculture in 1861 represented about 20 % of the occupied population, and in 1911 about 8 %. Its ratio to the group of industries covered by the Trade Union sample declined from about one-seventh to one-eleventh in that period. It is reported to have a very low rate of unemployment, and a very low fluctuation. The exclusion of a low-rate industry of rapidly declining relative importance means that, if it had been included, the trend of the general rate of unemployment would have been more positive than the trend of plus 1 in 50 which the quoted figures show; and also that the fluctuation is greater than it would have been with agriculture included. But as regards the effect on turning-points, it appears that the "acuity" is great enough to maintain these, against the influence of an industry with a relative weight of (say) one to nine, and a rate of unemployment which would be high at half the average rate of the other industries. In other words, the change in agricultural unemployment required to alter a turning-point would be such as to give it an impossible rate of unemployment. This can be verified for the only years which matter after 1879, the years 1893–94, when the Trade Union index changed by 6·5 %, its smallest rate of change. Up to 1874, agriculture had too low a rate of unemployment to matter at all; and it is known that 1879 was a severe depression for it as for other industries.

It may be concluded that the unemployment index is reliable as regards critical years of change for comparison with indices of general enterprise and general prices.

(*b*) It requires argument also to justify the index of enterprise which is here employed. That is based on the annual formations of *new* limited joint-stock companies, of which an index can be constructed since 1860. This source of information does not appear to have been used hitherto. Since 1884, it is possible to trace the annual increase in the number of companies on the register, or of their capital, and this was done by Aftalion. But that figure is at best a net result, showing the excess of formations over liquidations and dissolutions, and there are technical administrative reasons why, in this country, a net result of this kind is unsatisfactory; especially the reason that the number of companies removed in any particular year by dissolution (under the Act of 1880) is accidental. It will be found, too, on examination, that the annual increase in the register is often far from equal to the net difference between new formations and the sum of liquidations and dissolutions. It can be shown that in England liquidations do not have a very close relation to the fluctuation of the trade cycle, so that new enterprise must be taken gross and not net in order to show whether it has such a relation.

The annual formations of new companies, as distinct from new registrations of old ones, are, of course, not identical with new businesses. Existing businesses may be converted into the company form. There are known to be cases where that conversion is made, for less desirable reasons than expansion of enterprise, by firms in an insolvent condition. But it is assumed that in general the assumption of the company form means an expansion of enterprise. It has been shown by Dr. Clapham that in important industries in this country joint stock was a slow development after the Companies Acts were passed, so that the "firm" was for a long time the representative type. The only figure to hand of the extent to which new companies were new businesses is one given by the Registrar to the Royal Commission on Trade Depression in 1886. Of the 7,000 companies formed in the years 1880 to 1884, 560 were conversions of private firms.* Companies "of a private character" were about one-third of all companies registered in the first six months of 1890, but this does not mean that they were all or mainly conversions out of private firms. Examination of the list given to the Committee of 1895 shows that two-thirds of these "private" companies had anonymous titles, and one-third were registered with personal names.† The conversion of public companies to the form of "private" ones in the legal sense of the Act of 1907 is a different movement, which proceeded rapidly, but is not relevant here.

In this connection, it appeared worth while to obtain some other indication of the way in which partnership was affected by the Companies Acts. This could only be derived from the numbers of partnerships *dissolved* each year, these numbers being taken as indicative of

* C. 4621.

† C. 7779, pp. 56–63.

the extent of the whole field of partnership. A sample was therefore taken from the *Gazette* by counting the dissolutions in the first issue after the middle of each month and multiplying by eight, as the *Gazette* appears twice a week.* For decennial periods the average annual figures are as follows:

1862–71	2,520	100
1872–81	2,720	108
1882–91	2,380	94
1892–1901	2,260	90
1902–11	2,050	81

But this rate of decline of partnership applies to the whole field of industry and the professions. It must be supposed that in the professions partnership has increased with general progress, since solicitors and doctors do not form companies. The industrial decline of partnership has been more rapid than these figures show. If one-tenth of partnerships in the sixties were professional, and these had increased in proportion to population, the decline in industrial partnership would have been about one-third; if one-fifth were then professional, the industrial decline would be about a half. So that, for other than one-man businesses, the firm was fairly "representative" of industry for a long time.

When the formations of new companies are indexed against a seven-year moving average they give a fluctuation which is clear and decisive; the figures are given in Table A. Up to 1899 there is a practically unbroken continuity in the upward and downward variation, and an obvious periodicity of development. There is a good fluctuation, with two periods of exceptional change. One of these is in the early sixties, due to a very rapid rate of company formation after the Act of 1862, and to a great slump after the crisis of 1866; the other is in 1901, when the great decline of companies is ascribed to the Boer War and the more strict conditions imposed by the Act of 1900. The decline in new companies had begun a few years earlier, probably because between 1895 and 1900 amalgamations and reconstructions were to a large extent substituted for new formations in harmony with the combination movement of that time. But the slump of formations in 1901 causes the curve to "fault" and, if it were smoothed for three years round this date, the index would decline regularly until 1902, and rise again regularly from that year. The magnitude of the decline in 1866–67, compared with the index of unemployment, which did not reach a corresponding figure, especially when compared with 1879, indicates that that fall of enterprise was largely financial.

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* This research was carried out by Mr. G. F. Todd, of Balliol College.

It will be shown that, as was to be expected, the curve of enterprise tends to change before that of unemployment, and is only once lagged upon it in the whole period. As regards prices, the result is more important.

(*c*) The price indices used here are those of general prices. It may seem that the prices of materials would be a more proper comparison with an index of enterprise based on company formations, since companies are not formed in agriculture. But an examination of the companies formed in any year shows that the enterprise they include is more varied than corresponds to materials alone; in 1880, for example, nearly a fifth of them represented retail and other local services, and even the industrials were a very diverse group. Nothing can be assumed as to where the changes in enterprise start, and the most comprehensive price index appears to be the appropriate one.

The critical points of the trade cycle are its turning-points, in relation to all arguments which seek to decide the priority of influences on depression and recovery. Such arguments must, therefore, avoid offhand ways of dealing with the relative fluctuation of prices, against the long trends which correspond to gold supplies. One must aim at the maximum of precision. There are three indices of general prices, those of the *Economist* and Sauerbeck since 1860, and of the Board of Trade since 1871. None of them has the same decisiveness at turning-points as the index of unemployment. The use of a chain index of price changes is a slippery method, because over the period 1860–1910 there are 19 cases in which the three indices of relative prices do not agree in the *direction* of change. The indices of *absolute* prices also differ materially, the Board of Trade differing in direction of change from Sauerbeck in 9 out of 42 cases, and from the *Economist* in 11 of 42 cases; while the *Economist* differs from Sauerbeck in 16 of 51 cases. The relative indices differ at 4 out of 13 turning-points, and the absolute indices at five of these. (Sauerbeck's index, which is most commonly used, is quoted only to the nearest unit; the absolute figure is given as 72 for each of the years 1889–91, but by the weights there is a difference of 0·75 between 1889 and 1890, a greater relative change than that between the quoted figures for 1882 and 1883.)

If an argument is to be based on the price index, it must be made as precise as our materials permit. I have therefore taken the seven-year moving index of each of the three absolute indices, correct to one decimal place, and have taken the average of the price relatives which result. These figures are appended (Table B). The *Economist* relative index on the old basis is the same for 1899 as on the new basis, and for subsequent years the new basis has been used.

When this is done, the price cycle is a good fluctuation, disturbed chiefly by the Russian War which affected the price of grain in 1877. The effect of averaging the three indices is chiefly to decide that 1882 was a relative maximum, and 1904 a relative minimum. In the nineties there is nothing to choose between 1895 and 1896, but prices had turned in 1897.

It may be added that the form of the curve of relative prices differs in some important respects according to the index taken. If the Board of Trade index alone were used, it would appear that the range of fluctuation was greatly reduced after the special combination movement which took place at the end of the nineties, and that movement would be credited with the result. But Sauerbeck's index had a *greater* range of fluctuation after 1896 than before it. The *Economist* index of relative prices is a bad fluctuation.

5. Coming now to the general result of this examination, the following table shows the years of high and low turning-points of enterprise, prices, and employment:

High			Low		
Enterprise	Employment	Prices	Enterprise	Employment	Prices
65	65	64	62	62	—
73	72	73	68	68	70
81	82	82	78	79	79
89	90	91	85	86	86
97	99	00	93	93	95/6
06	06	07	(02)	04	04
(10)*	13	(10)*	08	09	09

* Five-year averages, but doubtful.

From which it appears that, except in the early sixties, it is enterprise which has had priority at the periods of change in the economic situation. On the whole prices tend to be the last of the indices to turn. Employment has first to take up the slack of short-time. In the early sixties, the new Company Acts had probably not yet created settled conditions for this type of enterprise. In 1900, the much stricter new Act materially changed the conditions, and the minimum year of 1902 for company formations is the result of a three-year averaging of the index round that year.

This result bears upon theories of the trade cycle, in that it causes the idea of particular "starters" of trade changes to be less applicable, and gives initiative simply to the prescience of enterprisers; while it conforms to the view that long contracts, or contracts for durable goods having a long period of manufacture, are continuing to be worked off after *new* enterprise has begun to decline from the boom position. The priority of new enterprise at periods of change may also be related to the psychological theories of the cycle.

6. What has been obtained is a comparison of indices at the critical periods. But this shows the cycle as a past event; for this comparison, we have it cold. But if we want to know not only what enterprise began its relative decline in 1881, or its relative increase in 1885, but what were the influences which caused the decline or recovery to take place in these years, then we have to study the cycle "hot," and look at prices in a different way. While a seven-year moving index defines magnitudes after the event, it cannot be supposed that the enterpriser looked as much as three years ahead and backward in making his decisions. We may therefore ask, what kind of price index will most closely fit, without any lag, the course of enterprise? What, for example, were the price *calculations* which in 1885 caused enterprise to recover in that year, before general prices had recovered? This question is supplementary, but alternative, to that which has been outlined above. Now, it is possible to form a number of hypotheses in this regard. In my view, it is reasonable to suppose that new enterprise would in any year be related to the price level in a manner which would involve (*a*) expectation of next year's prices, (*b*) average prices of the two preceding years, (*c*) rise or fall of prices in the two preceding years. This means one year forward and two years back, and the index of trade *stimulus* is given by the average of the following three ratios of actual general prices:

$$\frac{p_4 - p_3}{p_3}, \quad \frac{p_3 - \frac{1}{2}(p_1 + p_2)}{\frac{1}{2}(p_1 + p_2)}, \quad \frac{p_2 - p_1}{p_1}$$

for it seems right to suppose that stimulus will be greater if prices in the preceding two years have been rising, while the second formula only involves their average. The net average of these three ratios would then estimate the influence of prices on new enterprise in the year taken as 3. Now, in fact, if this is worked out on Sauerbeck's figures, a remarkably close fit is obtained with the moving index of enterprise. A better formula might be found than the above average, and indeed various estimates of "stimulus" might be made on the basis of prices. But this average is the best fit I have obtained.

If, therefore, any conclusions useful to theory may be drawn from the tendency of new enterprise to have priority in the changes which define the fluctuation known as the trade cycle, they may be supplemented by indices of motive or stimulus, whose success would depend on cancelling out the above priority. We would then be able to say that *certain price conditions* (and expectations) in any year were maxima or minima, and caused enterprise to have in that same year a maximum or minimum index, although this year was ahead of that in which *general prices* turned.

TABLE A

NEW LIMITED COMPANIES (FORMATIONS)

(Seven-year moving index)

1860	89	1886	95
1861	87	1887	96
1862	79	1888	111
1863	110	1889	113
1864	142	1890	109
1865	144	1891	99
1866	105	1892	89
1867	70	1893	79
1868	69	1894	83
1869	72	1895	101
1870	83	1896	113
1871	95	1897	115
1872	115	1898	111
1873	121	1899	108
1874	117	1900	109
1875	111	1901	79
1876	91	1902	94
1877	87	1903	97
1878	75	1904	90
1879	86	1905	97
1880	100	1906	100
1881	120	1907	99
1882	111	1908	89
1883	104	1909	104
1884	88	1910	113
1885	80		

TABLE B

SEVEN-YEAR PRICE RELATIVES

Average of *Economist*, *Sauerbeck*, *Board of Trade*

1860	97	1886	94
1861	96	1887	96
1862	98	1888	100
1863	105	1889	102
1864	111	1890	103
1865	102+	1891	104
1866	102−	1892	100
1867	98	1893	101
1868	96	1894	98
1869	95·5	1895	97−
1870	95	1896	97−
1871	98	1897	97+
1872	106	1898	98
1873	107	1899	99
1874	102	1900	109
1875	98	1901	102
1876	99	1902	98+
1877	103	1903	98−
1878	98	1904	97
1879	94	1905	98
1880	102	1906	102
1881	101	1907	106
1882	105	1908	98
1883	103	1909	96
1884	100	1910	99
1885	96		

Table C

UNEMPLOYMENT

(Trade Union Corrected Percentage)

1860	1·85
1861	3·7
1862	6·05
1863	4·7
1864	1·95
1865	1·8
1866	2·65
1867	6·3
1868	6·75
1869	5·95
1870	3·75
1871	1·65
1872	0·95
1873	1·15
1874	1·6
1875	2·2
1876	3·4
1877	4·4
1878	6·25
1879	10·7
1880	5·25
1881	3·55
1882	2·35
1883	2·6
1884	7·15
1885	8·55
1886	9·55
1887	7·15
1888	4·15
1889	2·05
1890	2·1
1891	3·4
1892	6·2
1893	7·7
1894	7·2
1895	6·0
1896	3·35
1897	3·45
1898	2·95
1899	2·05
1900	2·45
1901	3·35
1902	4·2
1903	5·0
1904	6·4
1905	5·25
1906	3·7
1907	3·95
1908	8·65
1909	8·7
1910	5·1
1911	3·05
1912	3·15
1913	2·1

INDUSTRIALIZATION AND POPULATION

GUNNAR MYRDAL, *University of Stockholm*

ONE of the most noteworthy features of Gustav Cassel's Theory of the Business Cycles is his discussion of the relation between industrialization and demographic changes.* Cassel, in fact, rather centres the whole problem upon questions of population mobility—as represented particularly by the differential rate of migration from urban to rural districts and the occupational changes from one phase of the cycle to another.

Cassel limits his discussion of the business cycles to the countries of Western civilization and to the period of progressive industrialization up to the War, during which industry was rapidly expanding. The new supply of labour necessary for this expansion was to a great extent drawn from agriculture; this secular movement is demonstrated by census figures from a number of countries. As the expansion of industry was not, however, proceeding at a uniform rate, Cassel forms the hypothesis that the migration from rural to urban occupations also occurred in cycles, increasing during recoveries and booms and decreasing during depressions. Cassel states this hypothesis in the following way:

> Es ist bekannt, dass die landwirtschaftliche Bevölkerung in den europäischen Industriestaaten seit dem Durchbruch des Industrialismus immer imstande gewesen ist an andere Berufszweige einen bedeutenden Zuschuss von Arbeitskräften abzugeben. Der Strom, der also der Industrie Arbeitskräfte zugeführt hat, ist aber nicht gleichmässig geflossen. Die kapitalproduzierenden Industrien haben in den Depressionsperioden überhaupt keine Arbeitskraft von aussen aufnehmen können, dagegen in den Hochkonjunkturen sehr grosse Zuschüsse gebraucht. Die Überschussbevölkerung der Landwirtschaft ist also in den Depressionsperioden gewissermassen in der Landwirtschaft zurückgehalten, sozusagen magaziniert worden, bis sie in den Hochkonjunkturen von den kapitalproduzierenden Industrien in Anspruch genommen worden ist. Diese verfügbaren Vorräte von Arbeitskräften in der Landwirtschaft haben für die kapitalproduzierenden Industrien die eigentliche "industrielle Reservearmee" ausgemacht. Erst durch diese Reserve sind die Hochkonjunkturen in dem Umfang, den sie bisher gehabt haben, überhaupt ermöglicht worden.

And again:

> Nur die Aufspeicherung von Arbeitskräften, welche in den Depressionsperioden in der Landwirtschaft stattfand, hat eine Deckung dieses ausserordentlichen Bedarfs der Hochkonjunkturen an Arbeitskraft ermöglicht.

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* *Theoretische Sozialökonomie, fünfte Auflage*, Leipzig, 1932, pp. 501 et seq.

This hypothesis of the rural population functioning as a labour reserve for expanding industry explains, in fact, why wages do not rise more rapidly during a boom period. In this respect there is a parallel between wages and interest on capital. Just as during the earlier part of a business boom the rate of interest is kept "subnormal" in the Wicksellian sense of the term, so labour also, owing to the extra supply which it drains from the rural occupations, can be obtained on cheaper terms than if that reserve did not exist. The boom will therefore go on longer and reach a higher peak. To the extent that this surplus labour in agriculture becomes depleted, this special cause of business fluctuations becomes less important or even ceases. Cassel thinks that such a situation is coming. He therefore reaches the conclusion that—

> die Konjunkturbewegungen zu einem wesentlichen Teile eine Erscheinung der Übergangsperiode von den alten Wirtschaftsformen zu den modernen darstellen. Wenn Arbeitskraft von aussen nicht oder nur in kleinem Umfange bezogen werden kann, werden Hochkonjunkturen in ihrer früheren Stärke nicht mehr auftreten können. Wenn aber die Konjunkturenkurve nicht mehr auf hohe Spitzen getrieben werden kann, wird sie natürlich auch keinen heftigen Rückfällen ausgesetzt sein und muss also sehr viel gleichmässiger verlaufen, als es bisher der Fall gewesen ist.

This conclusion probably, for several reasons, represents an overstatement of the situation. Even if we accept the implicit assumption (which Cassel in this connection obviously makes) that there are no disturbing factors in the realm of monetary policy, international trade and credit, we must not overlook the technical development in industry which is progressively taking the shape of "rationalization," releasing labour and creating an industrial reserve army within the industrial occupations themselves. The question of the future development of labour demand within agriculture is, furthermore, very difficult to discuss without more explicit and detailed prognostications founded upon intensive empirical studies, taking also into account such factors as technological and other structural changes. It might well be that such factors are tending to release labour in agriculture at about the same rate as before the War. And even if there should be no net migration from agriculture to industry over a period of time, agricultural labour could nevertheless serve as a labour reserve for industry if only labour demand in agriculture can be supposed to increase less during boom periods and decrease less during depressions and if the curve of demand for agricultural labour has greater elasticity.

Leaving that element of Cassel's theory out of account in this paper, let us fix our attention upon his basic assumption that there is a positive correlation between migration and business fluctuations. Cassel merely states that assumption, without being able to give any statistical proof other than a reference to the immigration statistics of the United States of America. There is, in fact, very little evidence available on internal migration. Vital statistics in most countries, including Sweden, have given very little attention to the geographical and occupational mobility of the population.

At the Institute for Social Sciences of Stockholm University there has been for some years a study in progress, the purpose of which is to collect and analyse statistical materials on the mobility of the Swedish population during the period of industrialization. The ultimate aim of the investigation is to unravel not only the interrelations between the movements of the different vital series (nativity, mortality, migration, etc.) which are themselves productive of changes in the composition of the total population over a period of time and of differences between special groups and localities at any given point in time, but also to study the relations between these vital changes and those other changes of an economic and social character which, together with the vital changes, make up the process of industrialization. From a demographic point of view, the most conspicuous element in this process of industrialization is the migration of the population between occupations and between localities. The whole study will therefore centre around the gradual transference of people from agriculture to industry, from rural districts to urban districts.

In Sweden this movement has been going on unusually fast and has gone very far. The whole process has, furthermore, taken place more recently than in most other countries with a similar type of social culture, thus enhancing the possibilities of a detailed economic and sociological analysis, as all sources of information are more complete and more reliable in modern times. Up to 1870, about three-fourths of the entire population made their living from agricultural pursuits, now not much more than one-third.

A study of the changes in Swedish population during the period of industrialization is all the more fertile as Sweden is perhaps the only country where available although unprinted statistical material makes a comprehensive analysis possible, or at least where comparable data are available over a sufficiently long period of time. Without going into details, it must be recalled that the Swedish population statistics have their foundation in a *continuous individual registration*, thus enabling these statistics to be used not only to indicate the status of the population at a particular time, but actual changes over a period of time. The ten-year census in Sweden is only a sort of balance sheet, analysed in certain respects. It can truly be said of the Swedish population statistics that it is possible to find in it all kinds of information if only one is prepared to undertake the necessary work.

In searching for a topic suitable for a paper in honour of Gustav Cassel, it seemed appropriate to present (although necessarily in a very summary fashion) some charts of the year-by-year internal migrations in Sweden, with some indication of their possible implications in the light of Cassel's hypothesis.*

In a rough way the general trend of the migration from rural to urban districts and from agriculture to industry can, as has already been pointed out, be followed by studying the ten-year census figures. For the analysis of cyclical fluctuations census figures are, however, of little use. Again, it must be remembered that census figures of the distribution of the population between different occupations and localities do not even give what may properly be called a secular trend but give only the "secular *result*" of migration, and, furthermore, do not even give this "result" in a pure form, but give the mixed result of migration plus nativity and mortality. This fact is the more important as nativity and mortality are not the same in different occupational groups and different localities, and not the same for the moving masses as for the stationary masses. Even if "real" fertility and mortality (corrected for age differences) should be the same for the different groups, which they are not, the age distribution differs and changes as a result of migration itself, and one of its consequences will be differences and changes in the relative numbers of births and deaths. The same is true as to differences and changes in the sex distribution as caused by migration. By studying only census figures we sacrifice the possibility not only of studying the cyclical fluctuations but also of analysing the process of change for any group of the population in the three components of that change: births, deaths, and migration. Yearly data are therefore indispensable in any study of migration.†

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* For a detailed analysis of these primary materials, see forthcoming publications.

† Monthly data might even seem desirable. But at least for Sweden, yearly data are sufficient for the purpose. The year is, in fact, the natural time unit in a study of internal migration in Sweden. This is due to the climate, legal and conventional traditions, and the almost total absence of migratory workers.

In a more fundamental approach to migrations it is undesirable merely to indicate the correlation between crude migration series and economic time series. There exist a number of causal relations between migration and other changes and differences within the population that will possibly tend to obscure the main relationship. Migration must, therefore, first be studied in connection with these other population factors. As has just been remarked, changes and differences in age distribution are among the most important results of migration in its dynamic phase. These changes and differences have in their turn effects upon migration, partly directly and partly indirectly through changes and differences in the relative number of births and deaths, which, to a certain extent, must be supposed to influence migration. Population must be conceived of as an interdependent mechanism, and it is this mechanism as a whole which must be supposed to undergo changes under the influence of (or, better, in some relation to) social and economic changes of greatly different kinds. These considerations have led us to incorporate in our study not only figures on migration, but also on nativity, mortality, and age distribution, etc.

When studying the changes and differences within the population mechanism under the period of industrialization, there are, as has already been hinted at, two aspects of special importance in relation to migration: the occupational and the geographical. These two aspects are to some extent associated, as people very often move at the same time between two districts and two types of occupation. The ideal study of migration ought to combine these two points of view. To get yearly statistics on the changes of occupation for a large mass of population is, however, almost impossible in any country. The study of the changes in geographical distribution must, therefore, be taken as leading to inferences about the changes in occupational distribution. The assumption is that there is a high correlation between these two factors of change. This assumption can in its turn be checked to some extent by a study of the occupational status of the individuals moving.

The general procedure in an investigation which in this way takes as its basis the geographical conception of migration must be the following. The communities constituting the smallest geographical units in the official compilations of vital statistics are to be classified according to the occupational status of the inhabitants. This classification must be rather intensive. It is certainly not enough to contrast the towns and the country as urban and rural districts. This is especially true for Sweden, where perhaps the greater part of the new industries are situated in the country, sometimes giving rise to more densely populated communities, which in many other countries would be classified as towns (towns in Sweden are created by charter), but more often so scattered and composed of such comparatively small units that even around a factory the population is not very dense. The movement from agriculture to industry has nevertheless changed the population in its most typical respects, a fact which is best proved by our results. We have therefore, contrary to the tradition in official vital statistics, based our investigation on a more detailed classification of the country communities belonging to different classes.

This classification of the geographical units is, of course, a crucial point in the investigation. In order to meet the difficulties, all the information available from public statistics, from public and private calenders, from geographical and economic handbooks, etc., on every community has been collected. A sort of social and economic monograph of every community is in this way obtained. On the basis of these monographs the 2,500 odd rural communities have been classified as industrial, mixed, and agricultural communities. As a fourth type the 100 odd towns have been classified separately.*

It must be admitted that this system of classification is not without its weaknesses. The rural community, for instance, is not a homogeneous unit, in respect either to size or to population. Although 69·9 % of the communities have between 500 and 3,000 inhabitants, about 1 % have less than 200 each, whereas another 1 % have more than 10,000 inhabitants each, and there are comparable degrees of variations in the areas. This, of course, is the difficulty inherent in any statistical investigation where ready-made administrative units must be used, but these community units may be considered as homogeneous in more respects than is the case with most such units.

This particular study has been limited to the period 1895 to 1930.† As it has not been possible to keep the classification unchanged during so long a period, each community was reclassified for both 1904 and 1914. The consequence is a small element of discontinuity in those of our time series which are composite and represent types of communities. For the years when the classification was changed, two figures have been calculated, one for the old, one for the new classification. Chart 1 gives a survey of the population in the four main community groups.

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* These four main groups of communities are thereafter subdivided by the use of finer distinctions: into communities with different kinds of industry; into communities with or without considerable forestry; into peasant communities and "large estate" communities; into progressive, stationary, and regressive communities, and so on. The community groups are, further, distinguished and studied according to their location in different geographical districts of the country. In this short note figures for the four main groups only and for the whole country will be presented.

† For certain districts the investigation has been carried back to 1860, thus including the whole period of industrialization.

For every community and every year the following data were collected from the unprinted material of official vital statistics:

(1) The population of the community at the beginning and at the end of the year,
(2) the number of children born during the year,
(3) the number of persons dead during the year,
(4) the number of immigrants from foreign countries,
(5) the number of emigrants to foreign countries,
(6) the number of persons moving during the year into the community from other communities in Sweden,
(7) the number of persons moving during the year from the community to other communities in Sweden.

We have divided each of the series according to sex, with the exception of the figures for births and deaths, where, at least from the point of view of this investigation, the sex differentiation was not regarded as being essential.

In addition to these main items of the demographic book-keeping, other data—not always annual—have been taken into consideration: age distribution, the number of households, the marriage rate, the proportion of illegitimate births, etc.

Totals and rates have then been calculated for the different groups of communities in the whole country and for smaller geographical districts. The time series so obtained are to be studied in correlation with each other and with statistical data of a social and economic character.

The next stage in the study will thereafter be an intensive analysis of the moving masses. It will indicate not a new field but a new method used. Hitherto we have worked with statistical totals representing the characteristics of the aggregate moving masses and of the communities from which and to which they move. The next stage must obviously carry us into greater detail, concerning both the migration and the individual migrating, and this will necessitate the analysis of the individual registers.

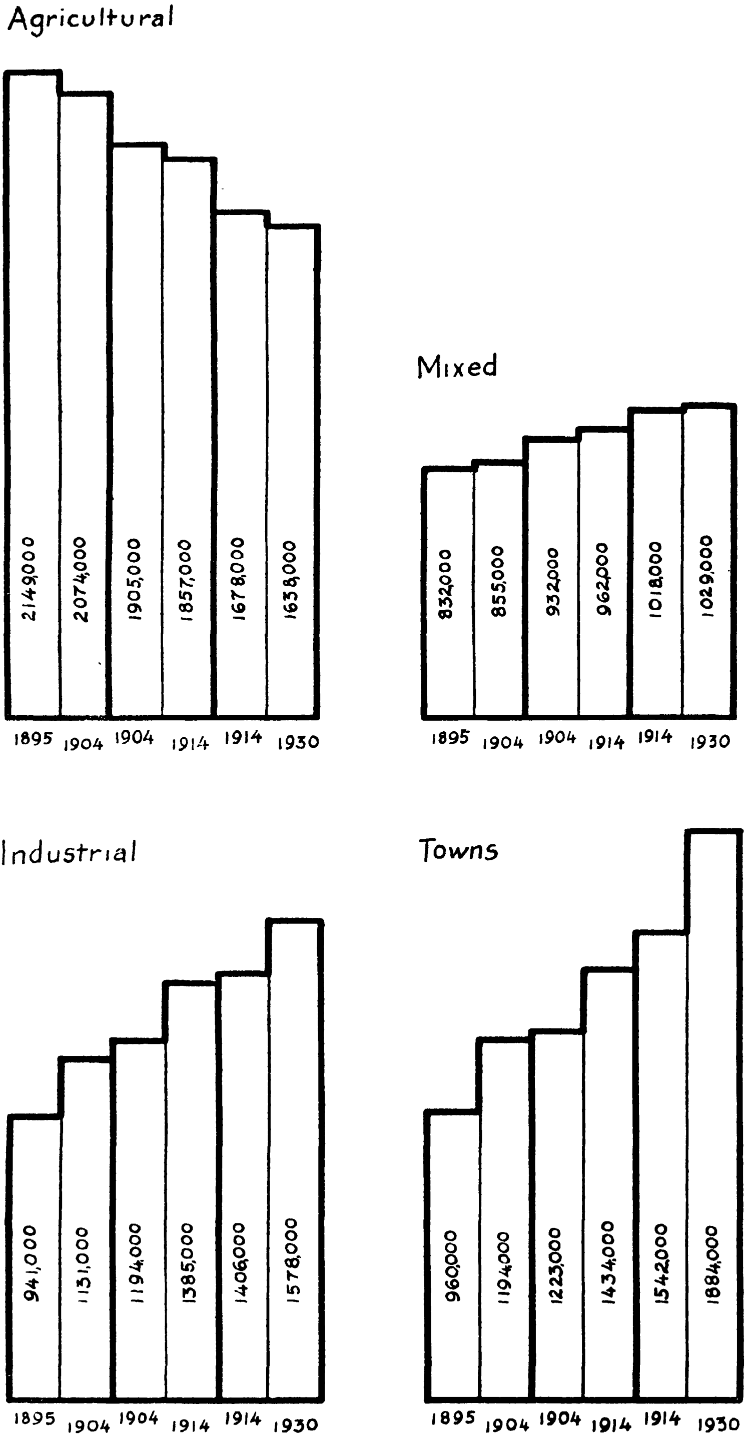

CHART 1.—Population in the four main community groups

Charts 2, 3, and 4 and Table 2 present a survey of the internal migration between the four main community groups in the country as a whole during the period 1895–1930.* The population figures used represent an average population for each group of communities of the population at the beginning and at the end of a year. The absolute figures for migration are then shown in the charts as percentages of the population.

The series cannot be discussed in any detail. They represent a concentration of a very extensive and heterogeneous material. Behind these summary data lies the whole complex of problems already hinted at. Only a few scattered remarks may be made; for an intensive analysis the reader must be referred to forthcoming publications.

One quite general feature which recurs in all our mobility series (even those here not quoted for smaller geographical districts and for sub-groups of communities) is the high correlation between the mobility of men and women. This correlation is also found in the series of net migration, in spite of its character of only a small residual term (see below). The female mobility is regularly higher than the male, and there is a tendency towards an increase in that difference, especially since the War.

The charts present two types of internal mobility series: those representing rates of persons moving in and moving out of the respective communities (Charts 2 and 3), and those representing net migration, which is the difference between these rates (Chart 4). These two types of mobility series show characteristic differences in their reaction to business cycles.

The net internal migration is the concept that comes nearest to the general idea of a transfer of people from rural to urban districts and occupations. According to Chart 4, agricultural communities have had a net loss of population due to migration in all years except 1918, as have also the mixed communities. Towns and industrial communities, on the other hand, have had a continuous gain from migration except 1918. Net migration shows rather distinctly the type of reaction to the business cycles which would confirm Cassel's general hypothesis.

A number of reservations and qualifications must, however, be borne in mind. Some points might be mentioned in addition to those revealed by a glance at the charts. First, it must be remembered that

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* Chart 5 gives for one, Västmanland county, the (male) mobility series for agricultural and industrial communities back to 1860.

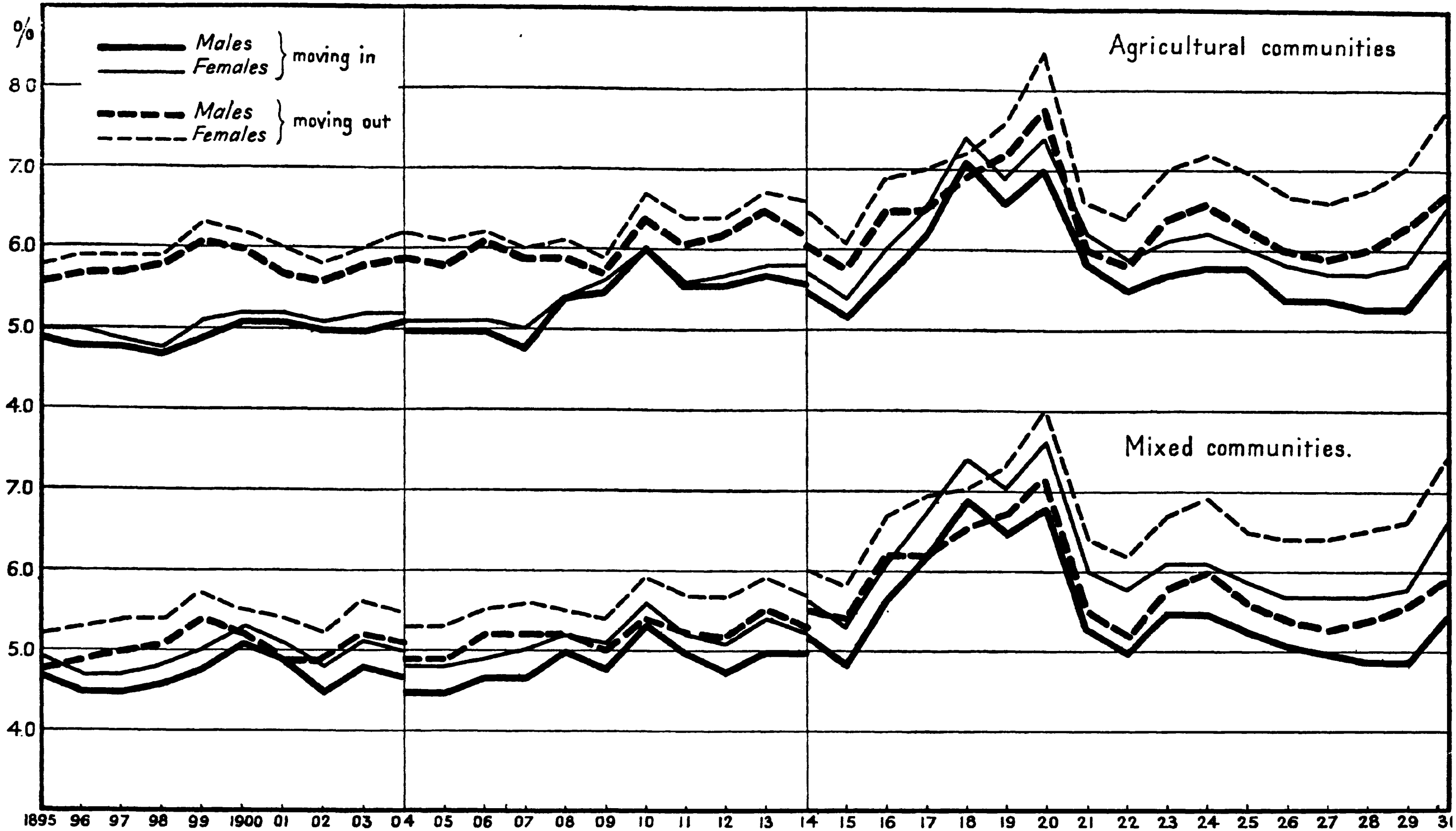

CHART 2.—Internal migration. Agricultural communities and mixed communities

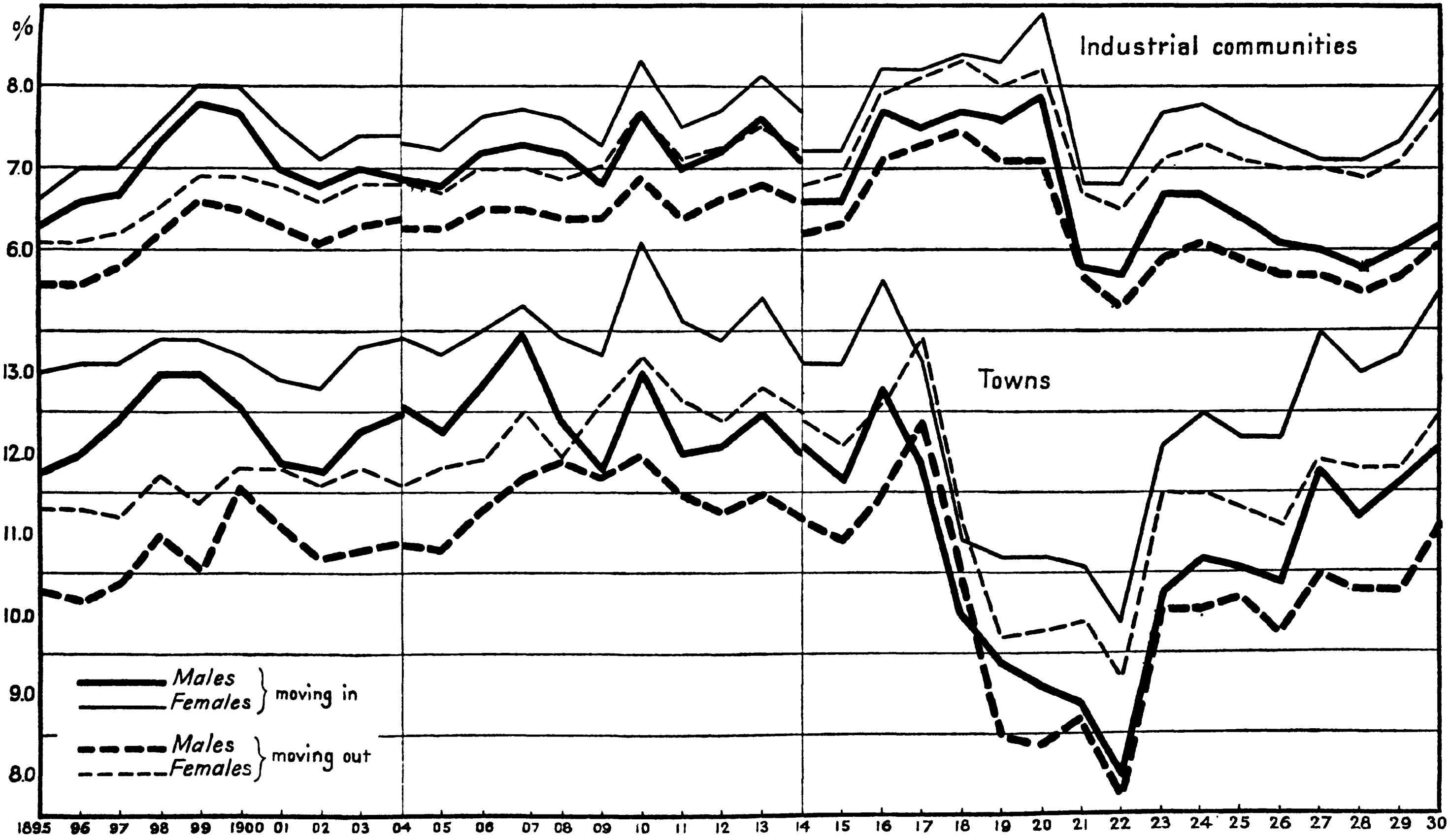

CHART 3.—Internal migration. Industrial communities and towns

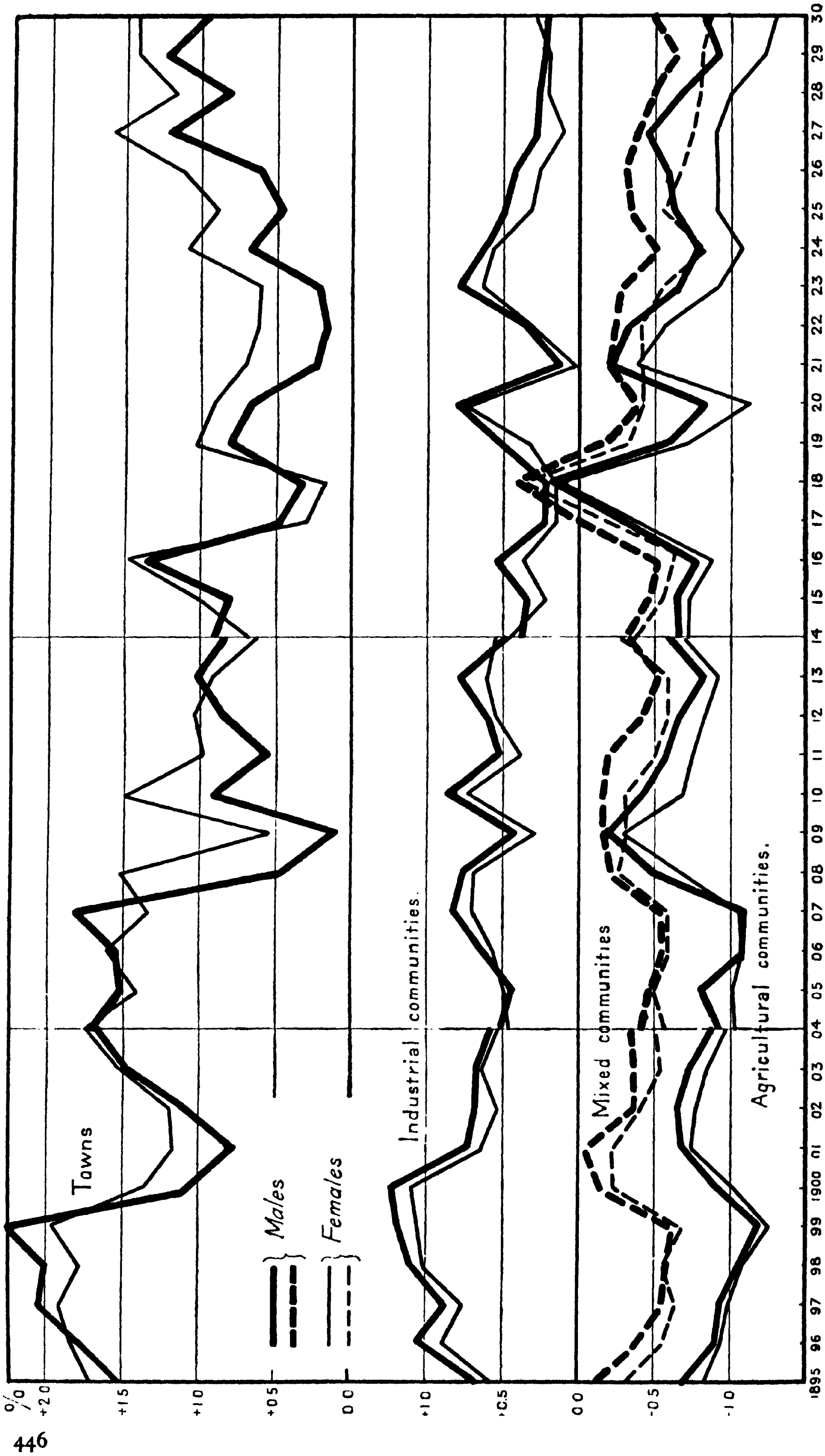

CHART 4.—Internal net migration

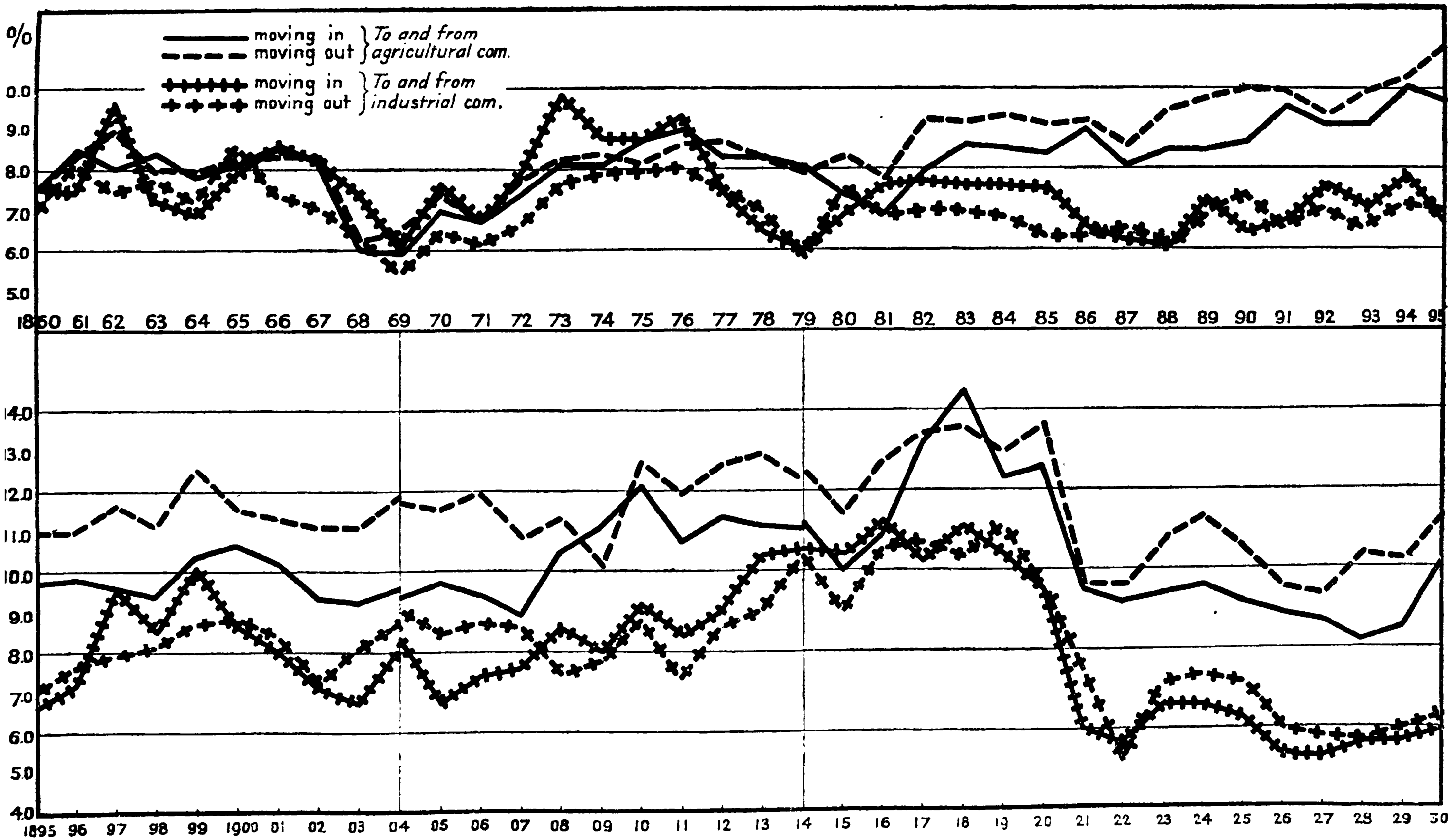

CHART 5.—Internal male migration. Agricultural and industrial communities in Västmanland county

net migration is only a rather small residual as between the corresponding figures for persons moving in and moving out. Especially as the age distribution and other vital characteristics of the individuals moving in opposite directions are not the same, net migration is not such a clear conception as it might appear to be *prima vista*. Again, it must be remembered that the groups of communities are not very homogeneous. Thus, the industrial communities, and even, though to a less extent, the agricultural communities, are in reality often more or less mixed. The towns also vary greatly in the composition of the population.

Since net migration represents such a small fraction of total migration, and since, furthermore, it includes so many unknown variables, the study of migration must not stop at an analysis of that rather queer term "net migration," but must proceed to the series for total immigration and emigration. Such a study gives a somewhat different view of internal migration. It is obvious from a glance at Charts 2 and 3 that there is a marked conformity between the movements not only of rates of persons moving to and from one of the main community groups, but also between these series for the different community groups. This general conformity in the movements of all the mobility series leads to the conclusion that not only net migration from agriculture to industry but also the mobility in itself has cyclical characteristics.

Both net and total migration series show great and characteristic differences as regards not only cyclical fluctuations but also average proportions of migration for different geographical districts within the country and different sub-groups within one of the four main groups. These differences constitute, of course, the chief points of interest in the study. It is mainly by an analysis of these differences that we hope to reach some explanatory inferences. Space does not allow a discussion of these points here. Only as an example of the type of problems involved, Table 1 and Chart 6 are presented. They give for one district the differences in (male) migration between agricultural communities with holdings (farms and estates) of different sizes. It is clear from these figures that mobility rates tend to vary directly in proportion to the size of holdings. These differences cannot be interpreted without an intensive analysis of the types of labour in each of these sub-groups.

As has already been pointed out, in our forthcoming analysis we plan to combine the mobility series with other vital series. As an illustration of the type of data which are thus relevant, Charts 7 and 8 present series for birth-rates and rates of (male) emigration to foreign countries.

The birth-rate series are rather remarkable as they show large and somewhat unexpected differences between the different community groups. The differences are, in fact, less striking between the towns and the rural communities than they are between the different sorts of rural communities themselves (agricultural, mixed, and industrial).

TABLE I

INTERNAL MALE MIGRATION TO AND FROM FOUR SUB-GROUPS OF AGRICULTURAL COMMUNITIES IN ÖSTERGÖTLAND COUNTY, 1895–1930

Average Size of Agricultural Holdings ..	– 10 Hectares Sub-group A	10–20 Hectares Sub-group B	20–30 Hectares Sub-group C	30–*w* Hectares Sub-group D
Number of communities per group	13	42	31	14
Average population, 1895–1930	7,954	23,000	13,691	4,502
Males moving in (average 1895–1930)—				
(*a*) Absolute number ..	391	2,242	1,750	660
(*b*) Per cent. of population	4·9	9·7	12·8	14·7
Males moving out (average 1895–1930)—				
(*a*) Absolute number ..	470	2,434	1,894	719
(*b*) Per cent. of population	5·9	10·6	13·8	16·0

Up to the War the birth-rate was lower in agricultural communities than in any other community group; since the War the situation is just the opposite. The industrial communities, on the other hand, showed the highest birth-rates in the first part of the period, but have now fallen below the other rural communities.

To a certain extent the differences between the birth-rates of the several community groups during the pre-war period are diminished but not extinguished when corrections are made for age distribution. The different types of development are, however, scarcely changed at all by making such corrections, as the differences in age distribution have been rather stable during the whole period. Space does not permit a presentation of the complete data here. It is impossible, however, to escape the conclusions that birth control of some sort in the beginning of the period and up to the War was more relied upon in

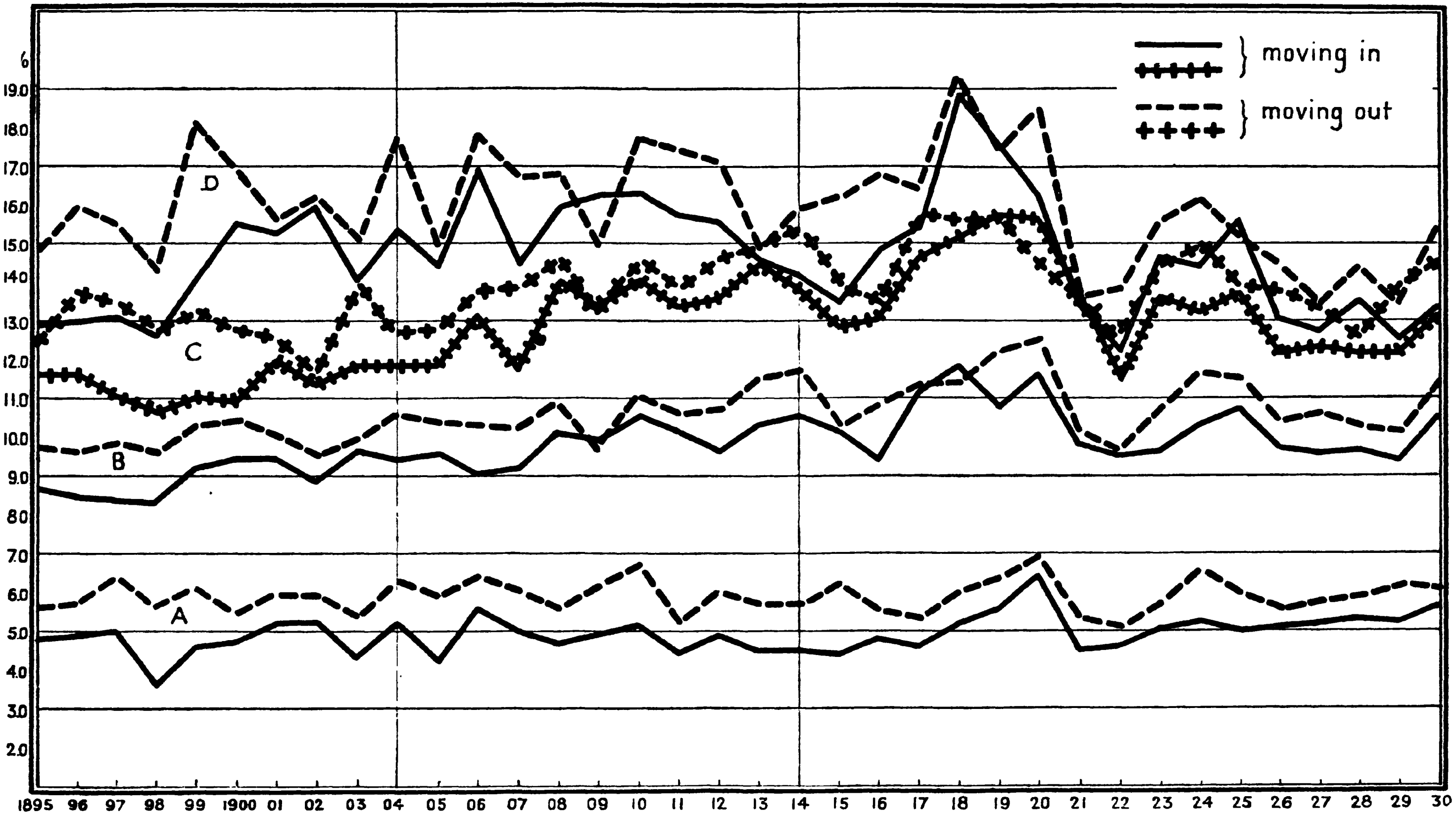

CHART 6.—Internal male migration to and from four subgroups of agricultural communities in Östergötland county with different sizes of holdings

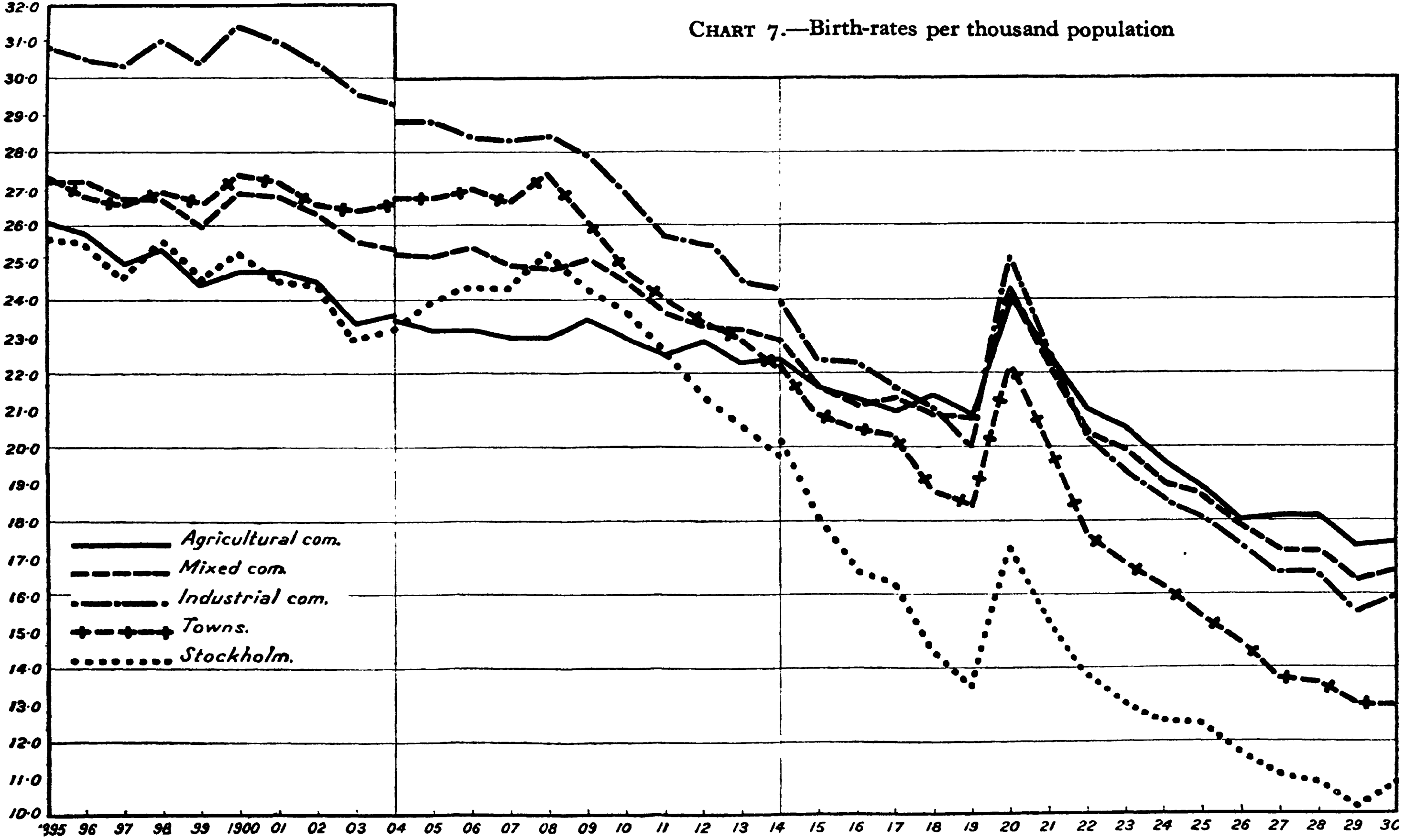

CHART 7.—Birth-rates per thousand population

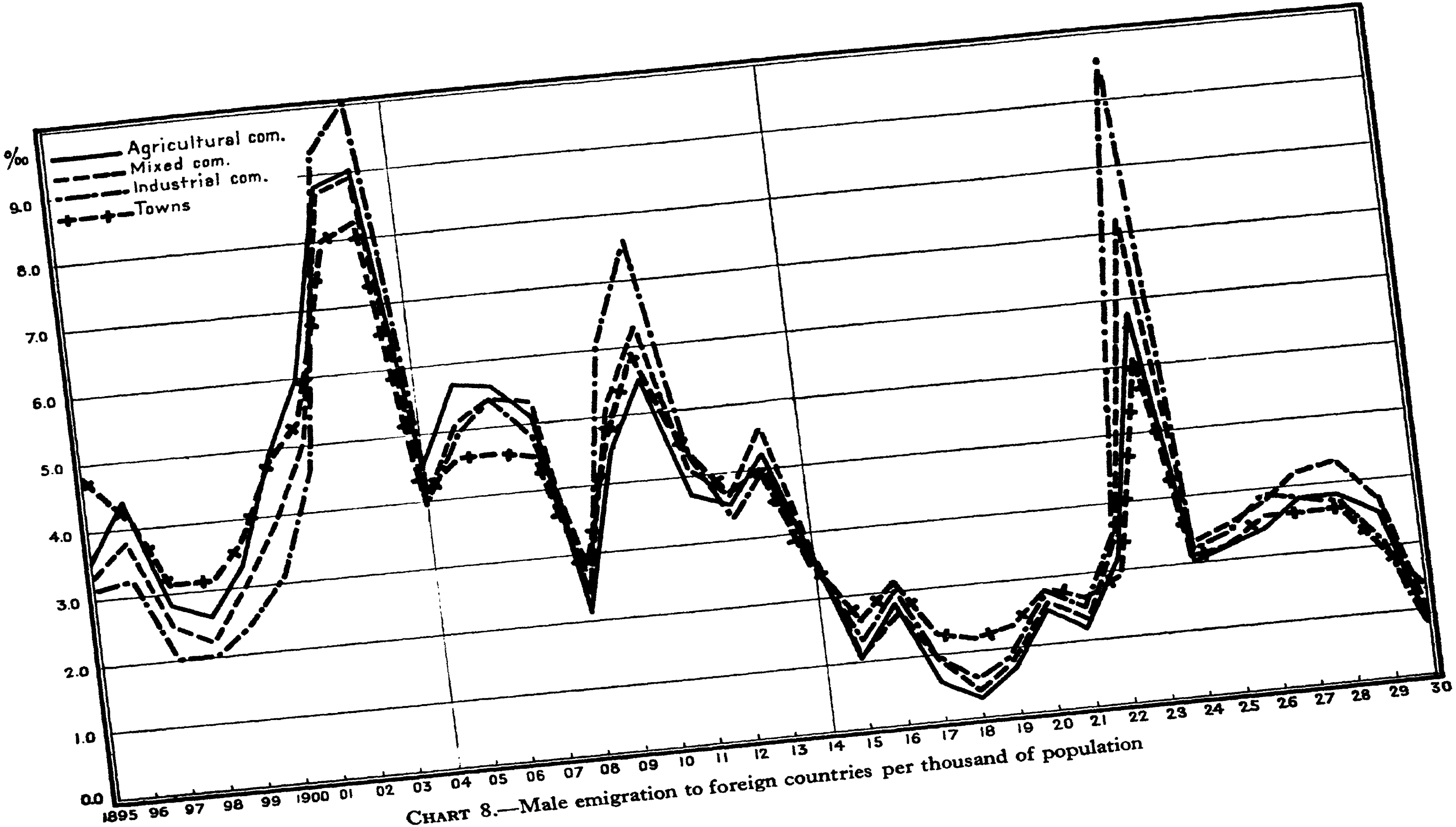

CHART 8.—Male emigration to foreign countries per thousand of population

Table 2

INTERNAL MIGRATION AND POPULATION

(*a*) Agricultural Communities

Year	Moving In		Moving Out		Population	
	Males	Females	Males	Females	Males	Females
1895	52,204	54,672	59,353	63,749	1,056,815	1,091,965
1896	51,153	54,791	60,698	65,058	1,056,258	1,089,850
1897	50,348	53,351	60,294	64,076	1,054,968	1,086,398
1898	49,912	52,458	61,070	64,089	1,054,298	1,083,141
1899	51,577	54,364	64,051	67,882	1,049,989	1,076,230
1900	52,795	55,717	62,231	66,589	1,043,915	1,067,750
1901	52,813	55,647	59,820	63,514	1,040,603	1,063,203
1902	51,741	53,848	58,320	61,967	1,037,061	1,059,768
1903	51,865	54,284	59,320	63,275	1,031,090	1,054,094
1904	51,874	54,396	60,803	64,611	1,025,846	1,047,704
1904	47,236	49,589	55,965	59,465	942,735	962,294
1905	47,316	48,895	54,832	58,568	937,564	955,866
1906	46,729	48,769	56,898	59,111	932,138	949,566
1907	44,239	46,998	54,292	56,997	926,285	943,415
1908	49,851	50,701	54,248	56,970	924,885	939,724
1909	51,308	52,565	53,085	55,368	928,449	940,744
1910	55,867	56,855	59,749	63,214	930,546	941,384
1911	51,776	52,749	57,107	59,776	930,417	939,359
1912	51,710	52,146	57,837	59,928	930,103	936,732
1913	53,022	53,870	60,693	62,587	938,376	933,305
1914	51,967	54,095	57,569	60,472	926,408	930,667
1914	45,688	47,726	51,339	53,761	837,456	840,483
1915	43,056	45,265	48,437	51,285	834,604	836,711
1916	48,006	50,492	54,511	57,815	835,430	836,186
1917	51,916	54,676	54,501	58,191	836,706	835,887
1918	59,874	61,723	58,452	60,643	841,320	838,511
1919	55,808	57,526	60,677	63,583	843,581	838,385
1920	58,732	61,540	65,847	70,962	844,117	836,057
1921	49,047	51,603	50,644	54,867	847,860	836,902
1922	46,832	49,389	49,588	54,009	853,454	838,340
1923	48,833	50,735	54,400	58,443	853,453	836,675
1924	49,635	51,277	56,459	60,153	849,944	833,234
1925	48,764	50,155	53,813	57,740	848,003	829,463
1926	45,793	47,727	50,681	55,199	846,426	825,693
1927	45,663	47,015	49,455	54,426	844,909	821,269
1928	44,835	46,755	50,426	54,878	842,836	816,183
1929	44,788	46,920	52,563	56,923	838,836	809,805
1930	49,336	52,172	56,157	62,738	835,338	802,427

TABLE 2—*continued*

(*b*) MIXED COMMUNITIES

Year	Moving In		Moving Out		Population	
	Males	Females	Males	Females	Males	Females
1895	19,188	20,539	19,580	21,894	409,906	421,671
1896	18,733	20,052	20,270	22,379	412,190	423,422
1897	18,472	20,063	20,754	22,790	414,056	424,380
1898	19,015	20,372	21,371	22,765	415,641	425,299
1899	19,962	21,487	22,504	24,341	417,131	426,076
1900	21,191	22,651	21,755	23,650	418,958	427,097
1901	20,616	22,038	20,737	22,964	421,951	429,245
1902	19,118	20,783	20,648	22,607	423,543	430,652
1903	20,197	21,854	21,819	24,172	423,298	430,825
1904	20,004	21,484	21,547	23,667	423,885	430,833
1904	20,854	22,375	22,779	25,044	462,781	468,829
1905	20,618	22,600	22,852	24,952	462,753	469,935
1906	21,583	23,225	24,197	25,961	463,281	470,329
1907	21,725	23,548	24,207	26,330	463,933	470,760
1908	23,133	24,700	24,051	25,905	465,988	472,220
1909	22,666	24,266	23,402	25,744	469,073	474,740
1910	25,001	26,746	25,724	28,193	472,520	477,966
1911	23,775	25,078	24,680	27,490	476,766	481,633
1912	23,019	24,739	25,041	27,531	477,981	482,001
1913	23,872	25,872	26,340	28,657	478,508	482,273
1914	23,652	26,334	25,206	27,771	479,075	483,253
1914	26,207	28,654	27,733	30,536	506,920	510,766
1915	25,037	27,059	27,382	29,900	508,508	512,611
1916	28,710	31,096	31,260	34,312	506,863	510,417
1917	31,442	34,222	31,422	35,157	509,407	511,682
1918	35,668	37,974	33,616	36,181	514,095	514,886
1919	33,157	35,696	33,979	37,301	510,856	510,438
1920	34,993	38,812	36,961	40,950	514,697	513,139
1921	27,670	31,205	28,745	32,406	523,073	520,642
1922	26,265	30,291	27,518	32,394	525,896	522,627
1923	29,060	32,108	30,542	34,925	526,294	522,952
1924	28,754	31,754	31,509	36,066	525,860	522,191
1925	27,829	30,984	29,611	33,972	525,803	520,798
1926	26,793	29,586	28,410	32,985	525,287	518,902
1927	26,045	29,241	27,962	33,088	524,813	516,919
1928	25,713	29,339	28,343	33,396	523,392	514,198
1929	25,684	29,622	28,970	33,764	521,692	511,326
1930	28,382	33,338	30,853	37,714	520,646	508,320

TABLE 2—*continued*

(*c*) INDUSTRIAL COMMUNITIES

Year	Moving In		Moving Out		Population	
	Males	Females	Males	Females	Males	Females
1895	29,118	31,522	25,992	28,926	465,777	475,168
1896	31,506	33,914	26,454	29,626	475,831	484,542
1897	32,589	34,705	28,256	30,899	487,183	494,783
1898	36,368	37,938	30,845	32,799	499,658	506,060
1899	39,936	41,367	33,830	35,882	512,749	517,826
1900	40,645	42,236	34,196	36,371	525,529	529,497
1901	37,881	40,328	34,040	36,922	537,934	541,227
1902	37,156	39,345	33,432	36,356	547,187	550,563
1903	38,727	41,517	35,093	37,968	554,440	559,172
1904	39,005	41,887	35,819	38,892	563,312	568,119
1904	40,738	43,691	37,699	40,933	594,534	599,956
1905	40,660	43,949	37,980	41,033	602,283	608,148
1906	43,818	46,711	39,985	43,219	611,985	618,332
1907	45,402	48,151	40,300	43,756	623,491	629,294
1908	45,717	48,429	40,810	44,030	636,120	640,986
1909	43,853	47,446	41,195	45,517	647,786	652,407
1910	50,724	54,745	45,142	49,898	654,815	659,607
1911	45,964	50,062	42,444	47,464	659,135	663,997
1912	47,963	52,087	43,925	48,443	669,672	674,288
1913	51,746	55,667	46,467	51,470	679,633	683,933
1914	48,812	53,812	45,549	49,979	689,805	694,725
1914	46,111	50,966	43,545	47,800	701,231	704,480
1915	46,688	51,051	44,343	49,495	708,269	712,447
1916	54,651	58,947	50,851	56,289	712,968	716,783
1917	53,643	59,284	52,098	58,198	716,139	718,960
1918	55,596	60,825	54,058	59,686	718,247	720,651
1919	55,216	60,638	51,535	58,196	729,665	731,134
1920	58,404	65,637	52,502	60,078	737,341	737,159
1921	42,708	49,817	41,821	49,646	737,760	736,078
1922	42,141	50,253	39,511	47,974	745,695	743,298
1923	50,298	58,197	44,352	53,450	752,727	751,431
1924	51,208	59,418	46,329	55,122	760,254	760,067
1925	49,446	57,187	45,582	54,845	768,330	767,426
1926	47,434	56,113	44,013	54,136	775,478	773,667
1927	46,466	55,077	44,192	54,297	779,259	776,348
1928	45,179	55,241	43,072	53,604	781,426	777,945
1929	46,718	56,897	45,022	55,305	785,690	781,922
1930	49,572	62,643	47,849	60,496	790,935	786,656

TABLE 2—*continued*

(*d*) TOWNS

Year	Moving In		Moving Out		Population	
	Males	Females	Males	Females	Males	Females
1895	51,257	68,387	44,697	59,376	435,744	524,343
1896	53,516	70,217	45,674	60,382	445,992	536,134
1897	56,878	72,153	47,489	61,640	458,426	549,338
1898	61,487	75,803	51,968	65,714	472,824	563,978
1899	63,126	77,441	51,741	66,128	486,733	577,805
1900	63,153	77,894	57,723	70,039	499,729	591,075
1901	60,095	77,769	56,162	70,757	506,733	600,649
1902	60,346	77,921	54,840	70,657	511,771	609,088
1903	63,978	82,568	56,229	73,220	520,006	619,307
1904	66,639	84,632	57,696	73,653	531,087	632,022
1904	68,684	86,711	59,340	75,380	546,871	647,307
1905	69,193	87,238	60,757	77,847	560,770	662,042
1906	73,844	91,490	64,978	80,698	574,396	676,881
1907	80,409	97,162	69,670	87,838	595,984	701,711
1908	74,996	95,778	72,278	84,943	607,233	713,869
1909	71,525	94,048	70,911	90,146	606,494	713,123
1910	79,891	106,513	74,284	95,727	616,770	727,236
1911	75,602	100,479	71,983	93,329	630,484	738,046
1912	77,529	100,233	71,976	92,631	639,344	747,301
1913	81,154	104,543	74,556	97,550	650,378	763,997
1914	79,508	101,481	73,878	96,736	660,313	774,122
1914	86,114	108,522	79,676	102,919	713,036	828,747
1915	84,488	109,904	78,588	101,631	723,788	839,561
1916	94,987	120,628	84,984	108,023	739,877	856,139
1917	90,356	114,545	93,993	117,195	757,007	874,184
1918	76,118	95,800	78,786	97,265	762,531	880,423
1919	71,746	94,933	65,525	85,918	766,628	885,272
1920	70,692	96,239	65,316	87,897	780,611	900,871
1921	71,187	97,496	69,187	90,959	796,125	919,739
1922	64,293	91,615	62,890	85,761	801,642	928,076
1923	82,999	113,573	81,270	107,921	805,412	935,145
1924	87,039	118,491	81,554	108,262	810,827	944,572
1925	86,902	116,578	83,074	108,117	817,166	954,935
1926	85,454	118,137	80,488	107,213	821,608	964,482
1927	97,587	131,636	87,395	116,249	829,920	977,852
1928	94,008	128,949	86,945	117,209	841,335	992,814
1929	98,641	132,546	88,069	118,369	851,865	1,005,826
1930	104,085	142,405	95,861	127,799	863,198	1,020,324

agricultural than in industrial districts, but that the neo-malthusian movement, once having started, proceeded far more rapidly in the latter districts.

The series for emigration to foreign countries show a striking agreement for the different community groups, the industrial communities tending to have the greatest amplitude and the towns the smallest. Just as in the birth-rate series, the results are contrary to expectation, in that the towns show a situation more unlike that of the industrial communities than that of other rural communities.

ÖFFENTLICHE KAPITALANLAGEN IN IHRER WIRKUNG AUF DEN BESCHÄFTIGUNGSGRAD

Dr. HANS NEISSER

EIN BEITRAG ZUR THEORIE DER ARBEITSBESCHAFFUNG

DIE Projekte zur Arbeitsbeschaffung, die gegenwärtig diskutiert werden, sind vornehmlich orientiert an dem Gedanken besserer *Kapazitätsausnutzung* durch *Kreditexpansion*. Auch dort, wo öffentliche Arbeiten oder öffentliche Aufträge erwogen werden, mit dem Ziele, Erwerbslose in den Produktionsprozess wenigstens zeitweise wieder einzugliedern, ist es nicht in der Hauptsache diese *primäre* Mehrbeschäftigung, mit der man rechnet — schon deshalb nicht, weil ihre Fortdauer von ständigen öffentlichen Zuschüssen, also von der öffentlichen Finanzkraft abhängig wäre — sondern jene Welle *sekundärer* Mehrbeschäftigung, die sich aus der verstärkten Kaufkraft der primär in den Erwerbsprozess eingezogenen (und dann natürlich in geometrischer Progression fortlaufend der sekundär Einbezogenen) entwickeln soll. Von dieser sekundären Mehrbeschäftigung lässt sich auch allein hoffen, dass sie sich ohne *ständige* öffentliche Zuschüsse und ohne *ständige* Vermehrung der Kaufkraftmenge erhalten wird; die auf der ersten Stufe der sekundären Beschäftigung ausgegebene Kaufkraft wird nämlich, so rechnet man, mit der Zeit kreislaufmässig, nachdem sie zahlreiche volkswirtschaftliche Stufen passiert hat, zu der ersten Stufe zurückkehren, und so hier einen neuen Anstoss von der Seite des Primärkreises der Mehrbeschäftigung überflüssig machen, der nur durch ständige Neuausgaben von Geld finanziert werden könnte; so wie sich im Prinzip eine im Gleichgewicht befindliche Volkswirtschaft bei gegebener und begrenzter Geldmenge in einem ständigen Kreislauf produzierend und konsumierend, einnehmend und ausgebend erhält.

Die näheren praktischen und theoretischen Probleme einer solchen Konjunkturpolitik sind an dieser Stelle nicht noch einmal zu erörtern.* Wesentlich ist hier der Grundgedanke, der diesen Projekten zugrundeliegt, nämlich Ausnutzung *schon vorhandener* industrieller Kapazität,

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* Vergleiche hierzu vornehmlich den Aufsatz von R. F. Kahn: *The Relation of Home Investment to Unemployment*, in *The Economic Journal*, Juni 1931; ferner meinen Artikel *Ankurbelung oder Inflation?* in *der Deutsche Volkswirt*, 6. Yg., Nr. 3 (Oktober 1931).

Einfügung Erwerbsloser in diesen nicht voll ausgenutzten Sachapparat durch das *Mittel des Kredits*. Die unausgenutzte Kapazität in den einzelnen Wirtschaftszweigen muss also die gehörigen Proportionen aufweisen; sie wird andrerseits in der technischen Naturalform in die Rechnung eingesetzt, in der sie nun einmal aus den Zeiten der Hochkonjunktur her vorhanden ist. Es ist eine typische *short-run-Betrachtung*, die hier vorliegt; und sie betrifft offensichtlich nur eine bestimmte *Phase der Depression*. Es ist dies jedoch nicht der einzige Weg auf dem die öffentliche Hand auf die Höhe des Beschäftigungsgrades einwirken kann. Die folgenden Betrachtungen sind ergänzend den Fragen gewidmet, welchen Einfluss Änderungen in der Struktur der Nachfrage und in der Struktur des Kapitalbestandes durch staatliche Wirtschaftspolitik auf den Umfang der Beschäftigung haben können. Der Beantwortung dieser Fragen ist wichtig gerade auch für Phase des Aufschwungs, in der die Nichtbeachtung der hier darzulegenden Grundsätze eine "strukturelle Arbeitslosigkeit" beträchtlichen Umfangs hervorrufen kann und damit vielleicht das Ende des Aufschwungs selbst einleitet.

I

Wir betrachten also zunächst einen Zustand des "Gleichgewichts," in dem die sachlichen Produktionsanlagen voll ausgenutzt, die Erwerbstätigen aber nicht voll beschäftigt sind. Ob man einen solchen Zustand "Gleichgewicht" nennen darf, wird freilich sehr zweifelhaft erscheinen.* Doch wird unsere Voraussetzung auf keinen Widerspruch mehr stossen, wenn wir nur den Zusatz machen, dass wir den Lohn als relativ starr und desgleichen die Produktionstechnik als gegeben ansehen; etwa einen Zustand einer in echtem Gleichgewicht bei Vollbeschäftigung auch der Arbeitskräfte befindlichen Volkswirtschaft, in die plötzlich von aussen zusätzliche Arbeitskräfte einströmen. Die Struktur der Nachfrage ist durch die Einkommensverteilung und die Geschmackskalen der Einkommensbezieher bestimmt. Innerhalb eines gegebenen technischen Horizonts wählen die Unternehmer die Produktionsweise derart aus, dass ihnen der höchstmögliche Gewinn verbürgt ist, und verteilen — unter Berücksichtigung der Nachfragestruktur — das Sachkapital, dessen Gesamtsumme wir im Augenblick als gegeben ansehen müssen, auf die einzelnen Produktionszweige.

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* Vergleiche dazu meinen Aufsatz *Lohnhöhe und Beschäftigungsgrad im Marktgleichgewicht* (*Weltwirtschaftliches Archiv*, 36. Bd. H. 2, Oktober 1932).

Von dieser Sachkapitalverteilung und von dem Charakter der gewählten Produktionsmethoden ist dann offenbar der Beschäftigungsgrad abhängig.

Daraus folgt, dass jede Änderung der Nachfragestruktur, z. B. durch Einkommensübertragung infolge Besitzverschiebungen von einem Individuum zum anderen bei gegebener Sachkapitalgesamtmenge auch den Beschäftigungsgrad ändern muss.* Wendet sich die Nachfrage Gütern besonders arbeitsintensiver Erzeugungsweise zu und von solchen besonders kapitalintensiver Erzeugungsweise ab, so wird, falls nur eine Umstellung des Kapitals möglich ist (worüber weiter unten zu reden ist) der Umfang der Beschäftigung wachsen und bei gleichbleibender Kapitalmenge die Kapitalquote je Kopf sinken.† Wir haben also zu fragen, inwieweit und auf welchen Wegen der Staat eine solche Änderung der Nachfragestruktur fördern kann und wie unter solchen Gesichtspunkten die zahlreichen Programme öffentlicher Arbeitsbeschaffung zu beurteilen sind. Die Beantwortung dieser Frage führt, wie man sehen wird, sofort zu einer neuen: indem der Staat Einfluss auf die Nachfragestruktur nimmt und die Einkommensverwendung in der Volkswirtschaft in eine bestimmte Richtung leitet, beeinflusst er auch die Struktur des Kapitalbestandes, der in Kooperation mit der lebendigen Arbeit und den Naturkräften Quelle des realen Volkseinkommens ist und demgemäss auch ohne weitere staatlichen Eingriffe einen bestimmten Beschäftigungsspielraum bietet. Wir haben darum im nächsten Abschnitt die Bedeutung von Änderungen der Nachfragestruktur und der mit ihren unmittelbar verbundenen Änderungen der Kapitalstruktur, für den Beschäftigungsgrad zu prüfen; im Abschnitt III erörtern wird die mittelbaren Einflüsse auf der Struktur.

II

Man hat behauptet, dass es für die Volkswirtschaft als Ganzes keinen Unterschied mache, ob sich die Nachfrage der Einkommensbezieher unmittelbar auf Güter richte, die in stark arbeitsintensiver Produktionsweise hergestellt werden, oder auf solche, die in stark kapitalintensiver Produktionsweise erzeugt werden.* In kapitalintensiven Produktionszweigen würde zwar nur ein verhältnismässig kleiner Teil des Erlöses unmittelbar für Arbeitskräfte, ein verhältnismässig grosser Teil für den Ankauf von Vorprodukten (Rohstoffen, Hilfsstoffen, Maschinen usw.) ausgegeben; aber diese für Vorprodukte ausgegebenen Beträge verwandelten sich auf den Vorstufen der Produktion in schnellem Tempo in Lohngeld und beschäftigten dort in um so grösserem Masse lebendige Arbeitkraft. Dieser Satz ist schon als Beschreibung des Geldkreislaufs nicht richtig. Denn je grösser die durchschnittliche Kapitalintensität der Volkswirtschaft, desto grösser auch der besondere, neben dem Einkommensgeldfonds fungierende Geschäftsgeldfonds, der die Umsätze zwischen den einzelnen vertikal hintereinander geschalteten Stufen des Produktionsprozesses vermittelt; zwar löst sich dieser Geschäftsgeldfonds partiell ständig in Einkommensgeld auf und wird insoweit u. a. auch an die Arbeiter als Lohn ausgezahlt, aber gleichzeitig fliessen durch die Verausgabung des Einkommens seitens der Konsumenten von den untersten Produktionsstufen her ständig neue Beträge in den Geschäftsgeldfonds, sodass er sich in jedem Augenblick in bestimmter Höhe neben dem Einkommensgeldfonds erhält.† Noch wesentlicher ist aber, dass diese von der Betrachtung des Geldkreislaufs hergenommene "Auflösungs"-theorie den springenden Punkt in der vorliegenden Fragestellung verfehlt. Es handelt sich hier nicht um die Frage, inwieweit die vorhandene Geldmenge für verschiedene Zahlungszwecke (Lohnzahlungen, Zinszahlungen, Zwischenumsätze usw.) in Anspruch genommen wird, sondern wie gross der Sachkapitalbestand ist, mit dem im Durchschnitt eine lebendige Arbeitskraft bei der Erzeugung eines Produkts kooperiert. Die Höhe dieser Kopfquote wird natürlich nicht nur bestimmt durch die Kapitalintensität der jeweils letzten, konsumnächsten Produktionsstufe, also z. B. des Konfektionsgewerbes (oder gar des Kleinhandels) bei der Deckung des Kleidungsbedarfs, sondern es ist notwendig, sich die Produktion vertikal in einzelne Staffeln aufgespalten zu denken und die *durchschnittliche* Kapitalintensität aller Stufen jeder einzelnen Staffel zu berücksichtigen, in unserem Beispiel oben also auch die Kapitalintensität der Weberei, Spinnerei,

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* Änderungen der Technik können natürlich kompensierend wirken, jedoch haben sie Lohnänderungen zur Voraussetzung. Dieser Punkt darf, wie gesagt, im Augenblick ausser Acht gelassen werden.

† Den hier vorausgesetzen Mechanismus der Verteilung von Kapital und Arbeit hat bekanntlich Cassel in seiner *Theoretischen Sozialökonomie* am schärfsten herausgearbeitet.

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* Dieser theoretische Fehler findet sich auch noch in meinem Aufsatz *Arbeitsbeschaffung durch Bauprogramme?* (*Magazin der Wirtschaft*, 1930, S. 1347 ff.).

† Für die nähere Analyse dieses Tatbestandes siehe meinen Aufsatz: *Kreislauf des Geldes* (*Weltwirtschaftliches Archiv*, 33. Bd., H. 2, April 1931) und *Marschak*: *Volksvermögen und Kassenbedarf* (*Archiv für Sozialwissenschaft und Sozialpolitik*, 68. Bd., H. 4, Januar 1933).

Baumwollproduktion, Textilmaschinenproduktion usw. Je weiter man eine solche Staffel nach oben verfolgt, desto mehr trifft man auf Produktionszweige, die allen Staffeln gemeinsam sind. Die Differenzen der durchschnittlichen Kapitalintensität werden also wesentlich bestimmt durch die Unterschiede der Kapitalintensität auf den konsumnäheren Produktionsstufen.

Sehr deutlich werden diese Differenzen, wenn man den Fall, dass *sämtliche* Produktionsstufen hohe Arbeitsintensität aufweisen, mit dem anderen vergleicht, in dem *sämtliche* Stufen hohe Kapitalintensität aufweisen. Doch sind diese Fälle praktisch unmöglich, weil, wie schon erwähnt, die höheren Stufen in allen Produktionszweigen identisch sind. Dass sich jedoch auch beim Wechsel der Kapitalintensität auf den einzelnen Produktionsstufen erhebliche Differenzen in der *durchschnittlichen* Kapitalintensität der Staffeln ergeben, zeigen die beiden folgenden Beispiele. Obwohl die höheren Stufen in beiden Fällen die gleiche Kapitalintensität aufweisen, bleiben im Fall I infolge der hohen Arbeitsintensität der ersten Stufe die durchschnittliche Kapitalintensität der Staffel klein, im Fall II aber umgekehrt hoch infolge der hohen Kapitalintensität auf der ersten Stufe.*

Es gibt also in der Tat relativ arbeitsintensive und relativ kapitalintensive Produktionsstaffeln. Wendet sich die Nachfrage—freiwillig, etwa infolge einer Geschmacksänderung — von besonders kapitalintensiv erzeugten Gütern ab und besonders arbeitsintensiv erzeugten Gütern zu, so kann eine Produktionssteigerung in den letztgenannten nur dann eintreten, wenn das zur Kooperation mit der lebendigen Arbeit hier erforderliche Sachkapital durch teilweise Umstellung des bisher in kapitalintensiven Produktions staffeln beschäftigten Sachkapitals bereitgestellt wird. In einer wachsenden Wirtschaft wäre eine solche Umstellung nicht erforderlich, sondern es würde genügen, dass die neu erzeugten Kapitalgüter in geeigneter Form vornehmlich in die arbeitsintensiven Produktionsstaffeln gelenkt würden.* In jedem Falle ist das Umstellungsbedürfnis relativ klein, eben weil die Kapitalquote je Kopf nicht erheblich ist, die in den arbeitsintensiven Produktionszweigen aufgewandt werden muss.

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* Um die Rechnung nicht zu komplizieren sind zwei Vereinfachungen vorgenommen, die an dem Resultat nichts ändern können. Erstens ist von Einsetzung von Gewinnziffern Abstand genommen worden, der Erlös einer Stufe also jeweils nur Lohn- und Sachausgaben der nächsten aufgeteilt worden. Zweitens ist als Kapitalbestand nur der *Sach*kapitalbestand gerechnet worden, obwohl selbst bei kontinuierlichem Absatz und völlig kontinuierlicher Einkommensauszahlung neben jenem ständig ein gewisser, wenn auch sehr kleiner Geldkapitalbestand vorhanden sein muss (vgl. *Lohnhöhe und Beschäftigungsgrad* usw. a.a.O., Abschnitt III A). Die zweite Vereinfachung lässt sich übrigens leicht aufheben, wenn man zum Sachkapitalbestanden Geldkapitalbestand hinzurechnet, der sich ergibt durch Division der Lohn und Kapitalausgaben mit der durchschnittlichen Zahlungsperiode, die man beliebig ansetzen möge.

Das Resultat wird sein, dass mit dem vorhandenen Sachkapital

PRODUKTIONSSTAFFELN VON VERSCHIEDENER KAPITALINTENSITÄT

FALL I

Stufe	Arbeit		Kapital		
	Lohnsumme	Arbeiterzahl	Kapitalausgaben	Kapitalbestand	
				Absolut*	je Kopf
1	2000	1	200	1000	1000
2	133,3	0,067	66,7	333	5000
3	44,4	0,022	22,2	111	5000
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
Σ	2200	1,1	300	1500	1363

FALL II

Stufe	Lohnsumme	Arbeiterzahl	Kapitalausgaben	Absolut*	je Kopf
1	2000	1	2000	10 000	10 000
2	1333	0,667	666	3333	5000
3	444	0,222	222	1111	5000
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
Σ	4000	2	3000	15 000	7500

* Kapitalumschlag: 20 %

mehr Arbeitskräfte zusammenwirken. Mit dieser Mehrbeschäftigung von Arbeitern ist auch eine Steigerung des Sozialprodukts verbunden; das zusätzliche Sozialprodukt wird an die neueingestellten Arbeitskräfte abgesetzt. Natürlich können in diesem Zusammenhang gewisse weitere Produktionsanpassungen und Produktionsumstellungen erforderlich sein, ebenso kann zur Verhütung störender Preissenkung Geldvermehrung nötig werden; doch interessieren diese Fragen in unserer "statischen," auf Beschreibung des neuen Gleichgewichts abgestellten Betrachtungsweise nicht.

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* Konjunkturell ist natürlich auch mit ungenützter Kapazität in diesen zu rechnen.

Für den Staat bestehen verschiedene Möglichkeiten, den hier beschriebenen Prozess der Umstellung auf arbeitsintensiv erzeugte Produkte zu fördern. Er kann dies tun z. B. durch Eingriffe in das Preisgefüge (mittels Steuern oder Subventionen), die gewisse Waren besonders begehrenswert, andere weniger begehrenswert machen. Er kann durch ähnliche Massnahmen auch direkte Einkommensübertragungen von einem Konsumenten auf den anderen vornehmen, wenn damit vernünftigerweise die Erwartung verbunden ist, dass sich die Struktur der Nachfrage in der gewünschten Weise verändern wird.* Einer besonderen Betrachtung bedarf aber die Verwendung staatlicher Mittel, die durch Kürzung des Einkommens der Staatsbürger auf dem Steuer- oder Anleihewege erworben sind† für *Investitionszwecke*, insbesondere die sogenannten öffentlichen Arbeiten.

"Investieren" ist ein relativ arbeitsintensives Gewerbe. Dieser Tatbestand wird leicht dadurch verschleiert, dass man Investieren als Nachfrage nach Kapitalgütern definiert, die durch Sparen, d.h. Verzicht auf Nachfrage nach Konsumgütern ermöglicht werde. Diese Definition wird jedoch dem Tatbestand nicht völlig gerecht. Gewiss dienen die gesparten Kapitalbeträge in mehr oder weniger grossem Umfange dem Ankauf von Kapitalgütern, von denen prima facie nicht gesagt werden kann, dass sie in durchschnittlich stärker arbeitsintensiver Produktionsweise erzeugt werden als die typischen Konsumgüter. Aber fast immer bedürfen diese neu angekauften Kapitalgüter, bevor sie in Funktion treten können, des Einbaus oder der Montage, für welche äusserst arbeitsintensiv Tätigkeit ein Teil des Sparkapitals bereitgestellt werden muss. In allen Fällen, wo es sich um den Neubau oder die Erweiterung ganzer Fabrikations- oder Transportanlagen handelt, spielt dieser Teil des Kapitalaufwandes eine sehr erhebliche Rolle.‡ Der Übergang vom

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* Solche Staatseingriffe — und ebenso die weiter unten erörterten — bedeuten im allgemeinen die Einschaltung besonderer Stationen — der Staatskassen — in den Kreislauf des Geldes und erzeugen einen zusätzlichen Geldbedarf. Dieser Punkt kann in dem vorliegenden Zusammenhang vernachlässigt werden.

† Wenn der Staat die Mittel auf dem Wege der Geldschöpfung an sich zieht — sogenanntes "Zwangssparen"! — gilt prinzipiell das Gleiche.

‡ Demgegenüber ist freilich auf der anderen Seite zu berücksichtigen, dass beim Ankauf von Konsumgütern (anders als bei dem von Kapitalgütern) der Teil des Erlöses, der auf das relativ arbeitsintensive Gewerbe des Kleinhandels entfällt, eine erhebliche Rolle spielt.

Konsumieren zum Investieren bedeutet also wahrscheinlich eine Steigerung der durchschnittlichen Arbeitsintensität in der Volkswirtschaft, was nach dem oben Gesagten gleichzeitig heisst, dass die Nachfrage nach Konsumgütern nicht in dem gleichen Masse zurückgehen muss, indem sich die Sparer des Konsums enthalten. Dieser Umstand ist wahrscheinlich die Wurzel des, allgemein gefasst, unrichtigen und in vieler Beziehung für die Theorie der Kapitalbildung verhängnisvollen Satzes, dass die Nachfrage nach Konsumgütern durch Sparen überhaupt nicht vermindert würde, weil die in der Produktivgüterindustrie tätigen Arbeiter dasjenige verzehrten, worauf die Sparer verzichteten.

Natürlich ist *volle* Aufrechterhaltung des laufend erzeugten Konsumgütervolumens nicht möglich, denn dies würde bedeuten, dass weder Sachkapital noch Arbeitskräfte aus der Konsumgüterindustrie abgezogen würden, was unseren Voraussetzungen widerspricht, solange wir nicht mit einer Neubildung von Kapital rechnen. Vielmehr schrumpft die Konsumgütererzeugung, jedoch nicht in dem Masse, in dem die Konsumgüternachfrage der Sparer zurückgeht; aus der Differenz werden die in der Sphäre der öffentlichen Investitionen zusätzlich eingestellten Arbeitskräfte zusammen mit denen in der Konsumgüterindustrie freigesetzten ernährt.

III

Wie die vorhergehenden Ausführungen gezeigt haben, steht die Struktur des Kapitalbestandes in eindeutiger Korrelation zur Struktur der Güternachfrage. Wir haben jedoch bisher die Einwirkung der Nachfragestruktur und ihrer Veränderungen auf die Struktur des Kapitalbestandes nur unter dem Gesichtswinkel einer stationären Wirtschaft betrachtet. Zu diesen bisher erörterten primären Einwirkungen treten aber *dann* gewisse sekundäre Einwirkungen der Einkommensverwendung auf den Kapitalbestand, wenn das Einkommen nicht verbraucht, sondern gespart und investiert wird, wenn also, für unseren Sonderfall des Staatseingriffs, es sich nicht blos um Änderung der *Konsumrichtung* handelt, sondern Grösse oder Richtung der laufenden Investitionen beeinflusst wird. Bisher richteten wir das Augenmerk nur auf die *Umstellung* des vorhandenen Sachkapitalbestandes, nunmehr sind Veränderungen in der Struktur des *Zuwachses* ins Auge zu fassen, wie sie durch die erwähnten Staatseingriffe herbeigeführt werden können. Dabei bedarf es keiner näheren Erörterung, dass alle Eingriffe, durch die der laufende Konsum zu Gunsten der Kapitalbildung beschränkt wird, unter dem Gesichtspunkt der Arbeitsbeschaffung zweckmässig erscheinen (sofern durch diese Eingriffe nicht dynamische Störungen hervorgerufen werden), und dass das Umgekehrte für eine Beschränkung der Kapitalbildung zu Gunsten des Konsums gilt. Im vorliegenden Zusammenhang interessieren nicht diese rein quantitativen Änderungen, sondern allein die qualitativen Änderungen die von einer, vom "natürlichen" Lauf der Wirtschaft abweichenden Verteilung des Neukapitals auf die einzelnen Wirtschaftszweige ausgehen.

Diese sekundären Änderungen in der Struktur des Sachkapitalbestandes (oder vielmehr seines Zuwachses) sind noch aus einem anderen Grund von den primären Umstellungsprozessen wenigstens vorläufig zu scheiden: die primären Umstellungsprozesse und die aus ihnen resultierenden Veränderungen des Beschäftigungsgrades haben ceteris paribus offenbar nur solange Bestand, wie die Änderungen der Nachfragestruktur durch Staatseingriff. Aber auch wenn sie sich infolge Aufhörens der Staatseingriffe rückbilden, bleiben noch die sekundären Wirkungen bestehen, nämlich die Aus- und Umgestaltung des Kapitalbestandes durch zusätzliche Investitionen, die von der öffentlichen Hand in bestimmte Richtung gelenkt worden sind. Es entsteht also die Frage nach der kreislaufmässigen Dauerstellung dieser Investition, nach den Bedingungen, unter denen sie dauernd ihre Funktion im Gütererzeugungs- und Beschäftigungsprozess ausüben können.

Es erleichtert die Beantwortung dieser Frage, wenn wir die kreislaufmässige Einordnung der Investitionen ins System der freien Marktwirtschaft ein wenig näher analysieren, wobei wir wieder von einer in echtem Gleichgewicht befindlichen Volkswirtschaft—und zwar einer geschlossenen Wirtschaft—ausgehen. Offensichtlich wäre hier die Angliederung eines einzelnen, nur eine Produktionsstufe verkörpernden Betriebes unsinnig (z.B. einer Spinnerei). Es ist grundsätzlich schon aus technischen Gründen die Angliederung einer ganzen Produktionsstaffel erforderlich. Aber auch eine solche führt noch nicht zum neuen Gleichgewicht; denn die in der neuen Produktionsstaffel zusätzlich beschäftigten Arbeitskräfte und die sonst aus ihr Einkommen beziehenden Personen fragen nicht nur die Produkte dieser Staffel nach, sondern Produkte jeder Art, in der gleichen Weise, wie die bisher tätige Bevölkerung. Es wäre also grundsätzlich die Angliederung eines ganzen Aggregats von Produktionsstaffeln erforderlich, das im Kleinen ein Spiegelbild der Volkswirtschaft im Grossen wäre.*

Nun ist freilich diese Angliederung eines ganzen Aggregats von Produktionsstaffeln (Typus I der Investitionen) nicht die einzige Form, in der Investitionen realisiert werden können. Kapital kann in vorhandenen Betrieben (oder auch in neu anzugliedernden) bei unveränderter Arbeiterzahl investiert werden, zur Steigerung der Produktivität der lebendigen Arbeit, wenn auch im allgemeinen nur mit sinkendem Kapitalertrag und also nur bei sinkendem Zinsfuss (Typus II). Die Investitionen können ferner dem *technischen Fortschritt* dienen (ob nun das Altkapital *vorzeitig* ersetzt und funktionslos gemacht wird oder ob es durch das Neukapital *tournusmässig* abgelöst wird); so wird bei gleichem Sach- und Arbeitsaufwand die Produktion mengenmässig erhöht (Typus III). Diese beiden letztgenannten Investitionstypen haben, isoliert für sich und nicht in Verbindung mit den "angliedernden" Investitionen des ersten Typus betrachtet, nicht die Eigenschaft, Arbeitskräfte zu attrahieren, ja wie bekannt, diese vielmehr unter Umständen frei zu setzen.† Sie wirken jedoch indirekt auf eine Steigerung der Beschäftigung hin, indem sie angliedernde Investitionen eines bestimmten Sondertypus ermöglichen, nämlich solche, deren Güter der Befriedigung *neuer* Bedürfnisse der bisher schon erwerbstätigen Bevölkerung dienen. Denn solche Befriedigung ist nur möglich, wenn die Produktion *je Kopf* der Werktätigen steigt, also nur dank der Investitionen des zweiten und dritten Typus, denen die Versorgung der Arbeiter (und sonstigen Einkommensbezieher) der Neubedarfsindustrien mit den Gütern des *hergebrachten* Lebensstandards zu verdanken ist. Erwägt man, dass mit steigendem Einkommen der höheren Schichten die Nachfrage nach den althergebrachten Gütern meist nicht proportional zu wachsen pflegt, so wird verständlich, dass breit angelegte Produktivitätssteigerungen in der Konsumgütersphäre Hand in Hand zu gehen pflegen mit der Entwicklung neuer Bedürfnisse und ihrer Befriedigung, auf welchem Wege allein möglich gemacht wird, dass der gesamte Einkommenszuwachs‡ aus den

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* Auch Technik und Produktivität wären die gleiche.

† Vergleiche die Behandlung des Industrialisierungsprozesses des letzten Jahrzehnts unter den gleichen Gesichtspunkten, bei Colm, *Industrialisierung und Arbeitslosigkeit* in *Verhandlungen des Vereins für Sozialpolitik*, 1932, für die theoretische Analyse der Freisetzung ferner: *Lohnhöhe und Beschäftigungsgrad* a.a.O., Abschnitt III B, insbesondere S. 450 f.

‡ Wie weit sich dieser Einkommenszuwachs als Geldeinkommenszuwachs bei unverändertem Preisniveau oder nur als Realeinkommenszuwachs bei sinkenden Preisen realisiert, hängt von der monetären Entwicklung ab und ist für unseres Fragestellung belanglos.

Investitionen des Typus III von den Einkommensbeziehern gerade zum Ankauf des Produktionszuwachses verwendet wird; denn sie führen im Gegensatz zu denen des Typus II nicht notwendig zu einer Steigerung des Anteils der unteren Einkommensschichten am Volkseinkommen.

Auch die Struktur des Kapitalbestandzuwachses ist also nachfrageorientiert; nur ist der Mechanismus der Zuordnung hier deshalb verhältnismässig kompliziert, weil sich je nach der Art der Investitionen die Einkommensstruktur der Volkswirtschaft selbst ändert. Mit dem In-Funktion-Treten des *neuen* Sachkapitals kann Eingliederung zusätzlicher Arbeitskräfte verbunden sein, aber auch Freisetzung. Der Lohnsatz kann bei gleichem oder steigendem Beschäftigungsgrad steigen, muss es aber nicht; ähnlichen Veränderungen sind die anderen Einkommenskategorien ausgesetzt. Greift nun der Staat in bestimmter Weise in das Investitionsgefüge ein, so hat er nicht nur dafür Sorge zu tragen, dass die technischen Relationen ungestört bleiben — d.h. er darf nur ganze Produktionsstaffeln verschieben — sondern er muss auch darauf achten, dass das Gleichgewicht zwischen Produktions- und Nachfragestruktur nicht gestört wird. Ein Weg dazu wäre, überhaupt nichts an der Struktur des Angebots der fertigen Waren etwas zu ändern, sondern nur an der Technik ihrer Herstellung. Das würde dadurch ermöglicht, dass der Staat unter gewissen Voraussetzungen bei der Leitung des von ihm beherrschten Produktionssektors nicht unbedingt an das Rentabilitätsprinzip gebunden ist, also z.B. eine weniger rentable, aber arbeitsintensivere Technik der rentableren kapitalintensiveren* vorziehen kann. Freilich wird auch durch solche Eingriffe nur in die Produktionstechnik die Nachfragestruktur geändert, eben weil mehr Arbeitskräfte beschäftigt werden. Doch ist dieser Punkt von entscheidender Wichtigkeit nur für den Fall einer *vollständigen* Kapitalplanwirtschaft, die in diesem Zusammenhang nicht interessiert; wird ein grosser oder gar der überwiegende Teil des neugewinnenden Kapitals nach wie vor freier, marktwirtschaftlich orientierter Verwendung überlassen, so kann damit gerechnet werden, dass die zur Versorgung der zusätzlichen Arbeitskräfte erforderlichen "angliedernden" Investitionen in verhältnismässig kurzer Zeit von privater Seite vorgenommen werden, sofern nicht gar unausgenutzte Kapazität in Konsumgüterindustrien diese Schwierigkeit beseitigt.

Im übrigen kommt daneben wieder auch die dauernde Beeinflussung der Nachfragestruktur durch Steuern, Subventionen, (in Verbindung mit Preissenkung der staatlich erzeugten Waren) usw. in Frage. Besondere Möglichkeiten bieten sich hier für den in weltwirtschaftliche Austauschbeziehungen eingebetteten Industriestaat, in dem, wenn auch zu etwas erhöhten Preisen, die Produktion gewisser, bisher vom Ausland bezogener Güter bei zweckentsprechender Kapitalanlage möglich wird. Die kleinbäuerliche Landwirtschaft ist ein im ganzen relativ kapitalextensiver Wirtschaftszweig; in einem Industriestaat kann ihren Produkten, soweit sie nicht ohnehin dem Eigenverbrauch dienen, im allgemeinen ohne Schwierigkeit der Absatz im Inland gesichert werden.

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* Man beachte, dass das vor allem durch Verkürzung der Lebensdauer der Anlagen geschehen kann.

Soweit im letzten Jahrzehnt theoretische Gesichtspunkte bei der Auswahl öffentlicher Arbeiten wirksam gewesen sind, scheinen es nur die im Abschnitt II behandelten Gesichtspunkte gewesen zu sein. Man bevorzugt Strassenbau, Wohnungsbau u.s.w. ihrer Arbeitsintensitivität wegen und fragte wenig, in welchem Grad diese Investitionen, *einmal durchgeführt* und in den wirtschaftlichen Kreislauf *eingegliedert*, kapitalintensive oder arbeitsintensive Struktur an sich trügen. Dies kann auch solange gleichgültig sein, als die öffentlichen Arbeiten im wesentlichen durch Ausnutzung vorhandener Kapazität geleistet werden, so dass ihre Durchführung keine Verminderung der am Kapitalmarkt angebotenen und von der Privatwirtschaft verwendeten Mittel bewirkte. Das wird aber in der Hochkonjunktur nur ausnahmsweise der Fall sein, wobei wir unter Hochkonjunktur hier einen Zustand relativ gut ausgenutzten Sachapparates verstehen, gleichgültig, ob daneben Arbeitslose in erheblichem Umfange existieren oder nicht. Nur die Siedlung dürfte nach dem oben Gesagten dem Ideal der Kapitalanlagen nahekommen, bei deren Durchführung relativ viele lebendige Arbeit gebraucht wird und die als Resultat einen relativ arbeitsintensiv funktionierenden Betrieb ergibt. Bauten aller Art — Wohnungsbau, Strassenbau, Kanalbau, Eisenbahnbau — erscheinen in ihrer Bedeutung für die Arbeitsbeschaffung selbst dann problematisch, wenn ihre Durchführung relativ wenig Sachkapital erfordert. Sie lassen sich zweifelsfrei nur in der Depression rechtfertigen, wenn sie auch in den übrigen Konjunkturphasen nicht völlig vermeidbar sein mögen. Ähnliches dürfte — gesehen isoliert unter dem Gesichtswinkel der Arbeitsbeschaffung — von den grossen Elektrifizierungsprojekten gelten, Investitionen, von denen es zudem zweifelhaft ist, wie weit bei ihrer Durchführung in überdurchschnittlichem Masse lebendige Arbeit beansprucht wird.

A NOTE ON PRICE THEORY WITH SPECIAL REFERENCE TO INTERDEPENDENCE AND TIME

BERTIL OHLIN, *University of Stockholm*

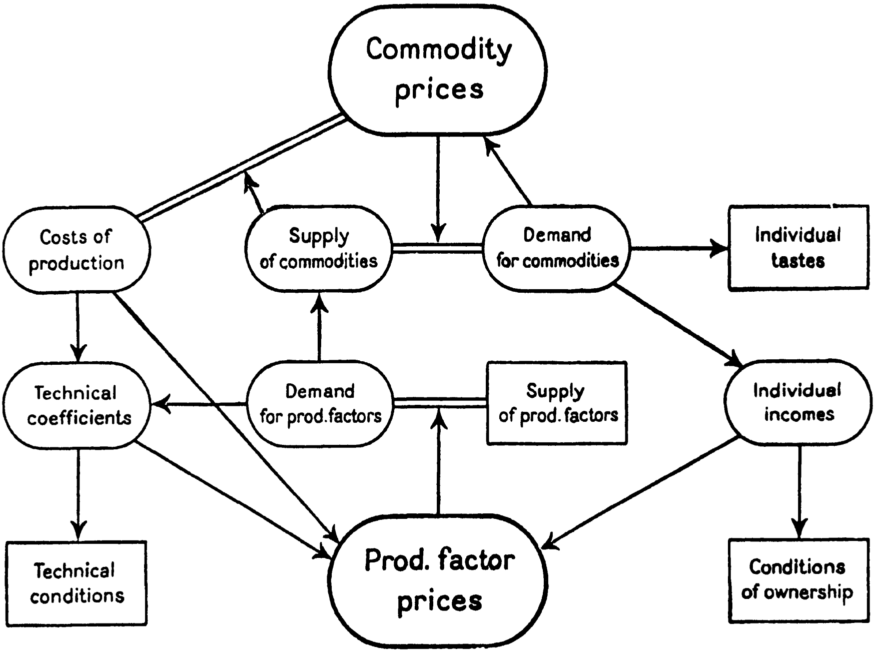
ONE of the first things every student of economics learns is that the system of prices is characterized by a "mutual interdependence." There is no one-way-causation from costs to prices as assumed by the classics. This idea was first clearly worked out by Walras and presented in his well-known system of equations. Cassel's presentation of a simpler system undoubtedly meant a great advance, both from a scientific and from a pedagogical point of view. It gives more of a bird's-eye view and, above all, makes it possible to put off the discussion of marginal utility and similar questions until the student has grown well acquainted with the working of the price mechanism as observed on the market.

According to my experience, many students find it easier to grasp the character of the relationship between the various prices and quantities that form parts of the price mechanism if the latter is illustrated by means of a drawing instead of a system of equations. A simple form of such a drawing is shown on the following page. It refers to a short period of time during which no changes take place. The atomistic assumption, i.e. full mobility and divisibility, is made.

The four elements which are marked by rectangles are given, or "primary" elements from the point of view of the problem of pricing. The others are "secondary." The height of commodity prices is determined by the condition that the quantity supplied and the quantity demanded must be equal. Demand for commodities depends on their prices as well as on the taste of individuals and their incomes. The latter, on the other hand, are governed by the prices of the productive factors and the conditions of ownership, i.e. the quantities of productive factors owned by each individual.

Turn now to the left part of the picture. Commodity prices are equal to costs of production. The latter depend on the "technical coefficients," i.e. the quantities of the various productive factors, that are required, and on the prices of the latter. The technical coefficients depend on factor prices as well as on the technical conditions, i.e. the technical knowledge and the physical qualities of nature. These technical conditions are, from the point of view of the price problem, to be regarded as known quite as the individual tastes and the conditions of ownership.

The prices of the productive factors, i.e. of their use during the period in question, is determined by the condition that the quantities demanded and supplied must be equal. Demand depends on the technical coefficients and on the quantities of commodities produced. Supply, on the other hand, may be regarded as given, i.e. independent of changes in the price system. It is, then, the fourth primary element.*



Only a change in one or more of the primary elements can call forth a change in the secondary elements. On the assumption of complete mobility and divisibility, every change in the former causes a change in *all* the latter unless by chance the various reactions that are set up balance one another.

A change in one of the four primary elements—the corner-stones of the building—causes a variation in the secondary elements, i.e. in the structure of prices and production. Such a variation may lead to a change in one or more of the other primary elements. Does not this destroy the reason for classifying the primary elements as a separate group? The answer is in the negative. Changes in the price system, caused by changes in one of the primary elements, *need* not at all affect the other primary elements. If they are affected—e.g. if the price variations called forth by technical inventions slowly change the taste of consumers—the character of the influence is certainly of a kind different from the influence exercised on the secondary elements. The latter are "dependent" variables, while the primary elements are on the whole and in a certain sense "independent" variables.

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* Some people may find it better to say at once that the supply of productive factors during a short period depends on their prices and on a fourth primary element, which is the supply of "land" and "capital goods" and "the willingness of individuals to work."

The manner in which demand for commodities depends on their prices and on individual tastes and incomes can be further analysed in terms of marginal utility or alternative concepts. The dependence of the technical coefficients on productive factor prices and technical conditions is explained by the marginal productivity reasoning.

Besides the general interdependence of prices, which has so far been dwelt upon, there are various sorts of special price connections. At the margin every productive factor can be replaced by one or several other factors. If the price of factor A is increased by a certain percentage, a certain quantity of it will be replaced by factors B, C, etc. The more *competitive* the factors are, the stronger the tendency towards substitution. For this reason the prices of certain factors have a tendency to vary in the same direction.

The special price connections of commodities, which, of course, cause indirect connections between factor prices, are more varied. The following table gives a brief survey of the different types of special relations between both productive factors and commodities.

I. CONNECTION THROUGH CONSUMPTION

1. Joint demand: Bread and butter.
2. Rival supply: Margarine and butter (substitutes).
3. Limited demand: The limitation of consumers' incomes and demand causes a connection between the prices of all finished consumers' goods.

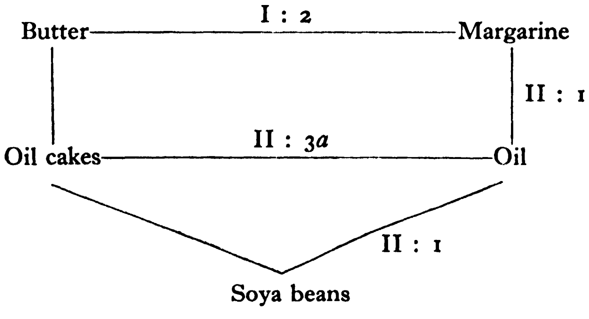
II. CONNECTION PRIMARILY THROUGH PRODUCTION

1. Vertical connection: Productive factor—capital instrument—raw material—half-finished product—finished product.
2. Horizontal connection: Rival supply (substitutes), i.e. competing materials like cement and bricks and competing productive factors like agricultural land of different qualities.

3. Vertical and horizontal connection:
    - (*a*) Commodities manufactured from the same commodity or commodities at an earlier stage.
        - (1) In one process of production, i.e. joint supply: coke and gas from coal.
        - (2) In several processes: rails and construction steel from iron and coal. This is often called rival demand.
    - (*b*) Commodities into whose production enters the same productive factor or factors. Wheat and rye are grown on similar qualities of land. (The greater the relative importance of the common commodity or factor, the stronger is, *ceteris paribus*, the price connection.)
    - (*c*) Commodities into whose production enter materials and productive factors that are more or less closely competitive or otherwise specially connected: Timber buildings, brick buildings, cement buildings.
    - (*d*) Commodities and factors which are materials for a certain good or for goods that are more or less closely competitive or otherwise specially connected: Clay is raw material for bricks and lime for cement.

Evidently the horizontal connection between commodities belonging to different vertical lines may be due to the fact that in any one stage of production either one or several commodities or productive factors are to be found in both lines 3 (*a*) + (*b*) or commodities and factors that are more or less competitive or otherwise specially connected 3 (*c*) + (*d*).

An illustration of some of the above-mentioned price connections is the following:



An increase in the demand for butter raises its price and the price of oil cakes. As a result the output of such cakes and of oil is expanded. The price of oil, and thus of margarine, tends to fall, and the consumption of margarine tends to grow for a double reason.

In most economic textbooks only four special price connections are mentioned, namely joint supply, joint demand, rival supply, and rival demand.

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Above time has been taken into account only in one respect. The quantity of goods produced depends on the length of the time during which the productive process is going on. Hence the whole reasoning refers to a period of time. One might say, e.g., that time is a dimension that is used for the measurement of the quantity of productive factors: So-and-so many workers and sums of capital are used so-and-so many days.

To describe adequately pricing under atomistic assumptions one has to consider the influence of time in another respect.

The influence of time arises also from the fact that certain periods elapse before the materials have passed the various stages of production and before the productive instruments are used up. These circumstances are dealt with in the theory of capital, e.g. through an analysis of the average period of production or period of investment, i.e. the Austrian form of the wage fund theory. It is owing to these circumstances that capital holds a place different from that of other productive factors.

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A consideration of all these circumstances completes the study of pricing under atomistic assumptions. A more realistic analysis has to consider time in a third respect, i.e. in its relation to the lack of mobility and divisibility. The existence of "friction" in the widest sense of that word means that all changes in production, brought about by variations in the primary elements or in the anticipations of future events, require time. It is this lack of mobility and adaptability that people have in mind when they say that market prices vary around the changing level of normal prices. In other words, the price system at a given moment differs from the position towards which the existence of certain primary elements and anticipations makes it tend. In that sense one can perhaps say that there is a certain "equilibrium" position, towards which it tends but which it never reaches. But this position is different from that which would exist under atomistic conditions. The fact that the actual price system never coincides with the equilibrium position affects the anticipations and thus the equilibrium position itself. E.g., the price which business men consider normal does not coincide with average costs of production when productive capacity is fully utilized,* but rather with average costs when production is carried on at 70 to 80 % of capacity. Besides, the existence of risks is to a large extent due to deficient adaptability, and these risks influence pricing.

If the influence of the lack of mobility and divisibility for pricing is discussed in terms of qualifications to the statement that commodity prices tend to coincide with costs of production, then the first qualification, not discussed in this paper, is concerned with the meaning of the term costs of production. Owing to incomplete mobility and divisibility, some costs are common for the output of a number of units of one or several commodities, i.e. there are overhead costs and economies on a large scale. In other words, the relation of prices to fixed and variable costs and to costs of different firms of varying size has to be considered, partly in terms of price policy. The latter is a quasi-monopolistic phenomenon. It has to be added that monopoly in some cases entirely obviates, in others weakens, the tendency of prices to coincide with average costs of production.

The second qualification refers to the fact that all changes in production require time. An analysis of pricing must, therefore, as already pointed out, be an account of a time-using process, and this in a different sense from that in the theory of capital. Assume that the demand for fish is suddenly increased owing to a change in taste. The reaction of the output and price of fish can only be described in relation to the lapse of time. The speed of the reactions or the rate of change must be taken into account.

It was mentioned in the beginning of this paper that the four primary elements, e.g. the supply of productive factors, react in an indirect manner to changes in the price system. The speed of these reactions, e.g. the rate of change in savings when interest rates are varied and the flow of labourers between different labour groups when relative wages are changed, has to be considered also.

So far, the price system has tacitly been assumed to refer to one market only. The geographical spread and incomplete mobility of the productive factors as well as of the consumers make it necessary to introduce the idea of space, i.e. to study the localization of production. The price system comes to embrace a number of more or less closely related local markets. The costs of moving commodities and productive factors and the speed of these movements have to be analysed. International trade theory is a part of such a general localization theory.

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* "Full utilization" exists when marginal costs are equal to average costs.

Further, man is a planning animal. He anticipates future events and his actions are changed accordingly. If prices are expected to vary, consumers will change their purchases and stocks. The distribution of their incomes between expenditure for current consumption and other kinds of expenditure, i.e. savings, is affected. Still more is this true of producers and traders. Hence supply and demand depends not only on the prices during the present period, but also on expected prices during future periods. Not only future prices are anticipated. Action is often based on a judgment concerning the future situation with regard to all the various elements in the price system.—There is always a *risk* that such judgments may be disproved by the actual course of events. The existence of such risks influences costs of production, output, and prices.

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This brings us to problems of money or credit. They are concerned above all with the relation of *the time sequence* (of the various reactions towards changes both in the primary elements and in the anticipations of the future) to *changes in the price and conditions of credit.* E.g., a general decision of a large part of the consumers to save less and consume more will set up certain tendencies towards higher prices and increased output both of capital goods and current consumption goods, if the conditions of credit are not changed *simultaneously* in such a way that an increase in total demand is prevented. But if conditions of credit are changed at once, an increase in prices and output need not come about. Monetary theory, like price theory in general, is always interested in "what happens first." In brief, it studies the influence of credit transactions on the time sequence of events. Thus the whole of price theory becomes an account of a time-using process.

THE UNITED STATES AND THE WORLD ECONOMY*

ERNEST MINOR PATTERSON, *University of Pennsylvania, Philadelphia*

IN January and February of 1933 it seemed clear in the United States that shortly after the inauguration of President Franklin D. Roosevelt active preparations would be started for the World Monetary and Economic Conference to be held in London. A domestic banking crisis of unexampled proportions appeared early in March, and at about the same time political conditions in many other parts of the world became acute. The result was a continuing and regrettable delay. Negotiations are now proceeding, and before this paper is published the Conference may be under way or perhaps over. But no matter what agreements may be reached, the problems giving rise to the Conference cannot quickly be solved. The situation is highly involved, and years may pass before the desirable new adjustments can be made.

During the post-war years trends have been difficult to distinguish because of the general confusion, while few observers have been able to survey calmly a situation many of whose aspects were of a sort that so easily stir the emotions. Most Americans have been quite unable to pass judgment upon their own national policies, and outsiders have also been hampered, partly because of their own bias, but also because there have been so many powerful and contradictory forces at work. Errors of judgment are still certain, but each month permits a clearer analysis.

Probably the best approach is through a reference to the international balance of payments of the United States. For our purposes this need not be presented in detail but merely in broad outline, to show the general position of the United States in its economic relation to the rest of the world. This relationship is not fully realized by many critics, and consequently some of the difficulties of readjustment have neither been understood nor appreciated.

By 1914 the United States had passed well through the stage of growth commonly called that of the "mature debtor." During a number of decades in her early history, until about 1875, her need for capital had been met by extensive borrowing from Western Europe. This stage had been marked by an excess of imports which is clearly revealed by the data for commodity movements, a picture that would presumably be confirmed by an accurately prepared statement of the total balance of payments if such a statement could be completed.

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* This essay was written prior to the assembling and the adjournment of the World Monetary and Economic Conference in London, as well as before the stupendous effort at economic recovery undertaken in the United States under the leadership of President Roosevelt. What has occurred merely confirms the judgments expressed.

After 1875 this status of "immature debtor," with an excess of imports and an accumulating indebtedness, was altered to that of the "mature debtor." Borrowing abroad was continued, but annual payments of interest on accumulated loans had become large. Moreover, the United States no longer had a merchant fleet, and each year made large freight payments to the owners of foreign vessels. The result of all debit and credit items was the necessity for net payments each year to abroad, an obligation that showed itself in a considerable excess of exports over imports. Just prior to 1914 this annual excess for the merchandise trade amounted to about $500,000,000.

For our present purpose the important fact for emphasis is the existence of this active balance with the reasons for it and the further fact that the internal economy of the country was definitely adapted to it. If the trend of development after 1914 had been similar to that of other countries at other times—say Great Britain in the nineteenth century—the United States might have become adjusted to the new situation with a minimum of difficulty, beginning to lend in less developed parts of the world and ultimately altering her position of debtor to that of an "immature creditor." The balance would for a time have continued active, perhaps becoming more so than in the preceding stage. There might have followed the final stage of "mature creditor." Imports, both visible and invisible, might have become larger than exports. With slight strain and over an extended period the necessary adjustments might have occurred, not entirely without friction but with only a minimum.

But within the period from 1914 to 1918 was condensed a stage of growth that might otherwise have taken much longer, perhaps several decades. Or it might not have come at all. Since it came and came rapidly the consequences were serious and a prompt and adequate adaptation was quite impossible. For four years every effort was made to encourage exports. Productive capacity for many farms and factories was enlarged. An American merchant marine was constructed to assist in the world's carrying trade. At the same time imports were decreased because other countries were so directly and indirectly absorbed in the conduct of the war. The active balance of the United

States grew. Other countries sent gold, resold American securities, and marketed new obligations of their own in the New York market and with the United States Treasury.

By 1919 the United States was definitely a creditor, a change immediately recognized both by her own economists and by those of other countries. The significance of her new status was clear. As creditors, the people of America had certain responsibilities, not only to the rest of the world but to themselves. It was important to readjust the balance of payments in order that as rapidly as practicable the relationship between imports and exports might be changed. To be a creditor was to recognize and to accept certain attendant obligations.

But most observers both at home and abroad failed to appreciate the difficulties of such an adjustment. An excess of imports over exports, or at least a rapid movement in the direction of such an excess, was desirable. Such a change could be brought about either by decreasing exports or by increasing imports—perhaps by increasing both, provided, of course, that imports were increased enough more than exports to bring about the desired results. If the new creditor status had been slowly acquired this might have been more easily effected, but it had come in about four years with a sudden increase in productive capacity and, of course, with a burst of nationalist fervour. A speedy reversal within a similarly brief period of time was entirely out of the question.

Let us suppose that exports had been sharply reduced. Perhaps the farmers of the Southern States would have been the ones to lessen their production of raw cotton, over half of which is usually sent abroad. But such a change would have necessitated a thorough readjustment of agricultural activity throughout a great area, forcing many thousands of farmers into some other line of production for which they had neither training nor facilities. If wheat growers had been asked to assume a part of the burden of readjustment their problems would have been similar. And so with every group of exporters. In so far as any line of production had been called upon to make the necessary shifts the producers involved would have been subjected to a severe strain. Farmers and manufacturers whose welfare was identified with exports would, of course, have protested bitterly, and their hardships would have affected the entire country. There would not have been merely the minimum of distress inflicted upon a few marginal producers who would have been compelled to find new lines of activity. With such large sums involved a quick adjustment would have been a painful one.

If instead the problem had been met by an increase in imports, the disaster would have been equally severe. There was, of course, the merely selfish opposition of the industries which had been nourished by tariff support, but no thoughtful person can deny the difficulties and hardships that would have attended a forced shifting of labour and capital to an extent sufficient to meet the new situation. It was possible without injury to receive more rubber, coffee, raw silk, and other like articles not produced within the United States, but a rush of textiles or citrous fruits or steel or coal would have been a different matter.

As Professor Cassel and others have so forcefully reminded us, much could have been done by a prompt cancellation of the amounts due to the Treasury of the United States from foreign governments. But even now the proposal to take such action arouses little sympathy within the United States. There were reductions in the settlements as made some years ago in the debt-funding agreements, and other reductions may be arranged in 1933; but even now, and in spite of the disasters starting in 1929, a complete cancellation seems out of the question. In 1919 such an action would have been of material assistance, though not enough in itself to have prevented some of the later troubles. To-day war debt cancellation would materially reduce the strain, but would be far from adequate. In the fourteen-year interval other items have grown so much and now loom so large that something still more sweeping is needed.

The complications were not fully realized in 1919, and what followed cannot be presented as a rational, considered procedure. Nor can it be defended as a movement toward a solution. In fact, it has greatly complicated world affairs. Nevertheless, it should be reiterated that the economic position of the United States was a difficult one after the war, and that the procedure followed for the next ten years need not surprise anyone, no matter how much he may regret it.

We have observed that an adjustment could have been accomplished by decreasing exports or by increasing imports, both visible and invisible items being included in each case. Instead of this "rational" procedure, the world witnessed just the opposite. Every effort was made to increase exports and to check imports. American business men undertook to capture the world's markets or as large a fraction of them as possible. Everywhere abroad American goods appeared. Under the energetic direction of Herbert Hoover, then Secretary of Commerce, the government aided in locating foreign markets and in encouraging the sale of goods. Exports grew until in the calendar year 1929 they amounted to $5,447,000,000. Imports also gained in amount, but not to the extent that the creditor position of the country suggested as appropriate. Of course there was a constant inward pressure, since the amounts due from abroad regularly created a demand for dollars with which alone payment could be made. But in one direction after another obstacles were imposed to the receipt of payments. Several may be mentioned.

One form of payment that had for years been of considerable importance is immigrants' remittances. But for what seemed good social reasons restrictions were placed upon immigration, until to-day, as a result of legislation and of administrative procedure, the movement has ceased. Another important method of payment had been freight charges earned by foreign vessels carrying American goods at a time when the United States had no merchant marine. In the post-war years every effort was made to maintain and to strengthen the merchant fleet that had been created to meet the war demand. In the form of favourable mail contracts and of government loans at low rates of interest to shipbuilders for the construction of ships that would fly the American flag, indirect subsidies were granted. Before the war foreign bankers and insurance companies earned each year important sums as commissions and premiums, but this business was largely shifted to New York.

Finally and, in the eyes of many outsiders, the most important, the already high American tariffs were raised still higher. By the temporary measure of 1921, by the more permanent legislation of 1922 and of 1930, and by "riders" to the Revenue Act of 1932, duties were increased. The reasons were, of course, much the same as the ones causing similar action in other countries. Intense nationalistic feeling, disturbances caused by the breaking up of old trade routes and the attempt to form new ones, the prevalence of dumping, the depreciation of currencies, and the consequent "exchange dumping"—these and other influences furnished the occasion if not always the real reason for the actions taken.

This procedure of increasing exports and of checking imports, when the apparent need was to decrease exports or to increase imports, was a possibility only because the American public was willing for a time to purchase foreign securities in large volume. At the end of 1931 the total of such private holdings, according to the estimate of the Department of Commerce, was about $14,635,000,000. The process of purchase was almost a "scramble" to buy rather than an orderly acquisition of carefully chosen bonds. It was inevitable that in some cases there was downright fraud and misrepresentation, in other cases clearly unwise purchases, and in still others doubtful ones. And when the price level declined in 1929 and the years immediately thereafter the calamity was appalling.

To this point the informed foreign observer has been reading a story that is thoroughly familiar to him, at least in its main outlines. One point, though already mentioned, needs reiteration and emphasis. An indiscriminate criticism of the government and people of the United States for their conduct from 1919 to 1929 is futile. To adjust the country promptly to its suddenly acquired creditor status was quite impossible. Under a Mussolini or a Stalin more might have been done. But the size of the task and the eagerness of the public to return to "business as usual" or to "normalcy" in a country steeped in the traditions of individualism were obstacles impossible to overcome. This does not entirely relieve the government or the intelligent public from responsibility. There was no valid excuse for the extremely contradictory actions taken, but criticisms should be tempered by a full realization of the difficulty of the task and of the impossibility of an easy adjustment of the conflicting interests and viewpoints.

Whether the writer is correct or not in his judgment of the past, the situation in 1933 is quite clear. No progress has yet been made to rearrange properly the international balance of payments of the United States. Instead, the disequilibrium is worse than it was fifteen years ago. To the public or "war debts," and to a somewhat modest amount of private investment abroad, there are now added a great mass of private investments that have since accumulated. Behind the higher tariff walls vested interests have been strengthened and increased in number. Prices have fallen and everywhere industries are disorganized. In many other countries currencies have depreciated, and in the United States there has been a banking crisis of unprecedented severity and a temporary suspension of gold payments.

It can readily be understood that this situation has a double effect. On the one hand, conditions are so serious that all must agree upon the necessity for remedial action. On the other hand, any proposal to meet the problem by lowering tariffs or by an extreme reduction of "war debts" is sure to be bitterly opposed. "In the long run" the results may be beneficial to all concerned, but it is necessary for most of us to live in the short run, and we are apt to ignore indirect or distant gains, even though large, for benefits that are more direct and immediate.

By the time these essays in honour of Professor Cassel appear the World Financial and Economic Conference may be over. But not all agreements reached at that Conference will have been put into effect, even though the Conference shall be an eminently successful one. No matter what their nature, it is easy to see the dilemmas faced by the various parties to the discussion. As a long run matter attention should be focussed upon the importance of a better equilibrium in international economic life. More immediately, the task is to restore international trade, whose value in the third quarter of 1932 was only about one-third of that in the corresponding period of 1929, and to stimulate employment in a world whose unemployed probably number over thirty million.

In its agenda the Preparatory Commission has enumerated the following as the principal questions to be considered:

> 1. In the field of monetary and credit policy, the objective must be the restoration of an effective international monetary standard to which the countries which have abandoned the gold standard can wisely adhere.
> 2. Some increase in the level of world prices is highly desirable and would be the first sign of world recovery.
> 3. The abolition of exchange restrictions is an essential condition fo world recovery.
> 4. There must be greater freedom of international trade.

When both the political and the economic factors are considered (as, of course, they must be), the awkwardness of the American position is clear. Perhaps the most spectacular, though not the most serious, international event of the last twelve months (that is, from the standpoint of the people of the United States) has been the failure of several countries to meet their war debt payments on December 15, 1932, and the growing agitation in other countries against the continuation of payments. Leaders of both of the major political parties in America have opposed cancellation, but in the face of recent events the public mind seems to have been prepared for a reduction, and discussions regarding its nature and extent are now going on.

Nevertheless, there is a widespread feeling that such an action would be a favour to the debtors, and it is popularly held that if any further reductions are made, concessions of some sort should be secured in return. No amount of argument at home or abroad has to date shaken the majority of the American public from the belief that these debts constitute a just claim. Failure of some governments to make payment last December has tended to increase resentment, while the manner in which certain others proclaimed their incapacity harmed rather than helped their cause. It may be repeated that further reductions are viewed as a favour to the debtors rather than as an advantage to the people of the United States. From this it would follow that to ask for offsetting concessions is quite proper.

Concessions are, of course, thought of as openings for the sale of American goods. We live in a money-making economy in which each business man succeeds through the sale of his product in as large an amount and at as high a price as possible. Markets are vital. If markets are closed an injury is done the seller. On the other hand, he is aided if markets are opened. If his government is asked to reduce its claims against a debtor, there seems to the ordinary citizen nothing strange in proposing that there should be a relaxation in trade restrictions now imposed by debtors.

That such a line of action does not solve the national problem that we have outlined is clear enough. For some years exports have exceeded imports, although a mature creditor status calls for the reverse. So distorted is the relationship, so great is the disequilibrium, that accumulated obligations from abroad to the United States have become enormous, so large in fact that payments cannot be made, especially in the face of many barriers to payment imposed by the United States. Apparently the advantageous procedure would be to lower the barriers and accept such goods and services as can be offered. If that cannot be done, national advantage would seemingly be derived by writing down at least a part of the amounts due, and then as rapidly as possible lowering the barriers in order to receive larger amounts of incoming payments. Instead, the popular reaction is in favour of reducing existing debts by no more than the necessary minimum and of demanding in return that the people of other countries take still more goods. Yet payment cannot be made for these renewed exports unless imports increase.

There is little to be gained by merely criticizing this apparently obtuse attitude of mind. It is natural enough in a world with the kind of economic organization that prevails. The individual seems to gain, and often does gain for a time, by doing the very opposite of that which is to the social advantage. The fact that such a catastrophe as that from which the United States is now suffering is due in part to this selfish and short-sighted action is not clear to most of the public and cannot easily be made clear. Advantages from excessively high tariffs may be temporary or even illusory, yet they seem very real.

This is the situation that will be faced by the representatives of the United States at the Conference. Representatives of other countries will forcefully present the lack of an international balance and urge upon the United States the necessity of a more stable equilibrium.

The Americans must take into account the public opinion just described and also the views of those who are intellectually convinced that the United States should reduce its economic contacts, sacrificing if need be large amounts already invested abroad, and hereafter live a more self-contained life. The fact that this cannot be done seems only slightly to lessen the enthusiasm of those who are favouring more "autarchy."

It would be quite futile to attempt any forecast of the Conference decisions. Of course, the urgent need is for a revival of trade, and readjustments of equilibrium along permanent lines may well take a secondary place. Probably the best that can be hoped for is that nothing shall be done that will tend to increase the long run dis-equilibrium, and hence pave the way for another and perhaps more serious collapse several years later. Whatever may be accomplished, the immediate need is for a stimulus to business activity. There is ample reason to keep this to the front, for certainly all the world will continue to suffer until this revival comes, and without it few debts, either public or private, can be settled.

Those who are cynical about the possibility of accomplishment through international conference are curiously unaware that world life is now so complex that no unilateral or bilateral decisions can be made that do not affect practically all countries. But there is a similar lack of realism in the views of those who seek relief merely by a return to the *laissez-faire* doctrines of the classical or neo-classical writers. Important changes have taken place that must profoundly affect our approach to world economic problems. Three may be chosen for brief emphasis, and then we may return to the task facing not only the American but also all the other delegates to the Economic Conference.

Not long ago an American writer observed: "Business has wings." He was emphasizing the rapidity of change in economic life, the acceleration of our tempo, the fact that our problems are more and more those of a dynamic rather than of a static society. New inventions appear so quickly that no business man can count on his ownership of markets, his control of copyrights or of patents, or on any other seeming advantage. In a few years, or even months, weeks, or days, he may be left far behind by his competitors. Accountants worry over how to "write off" proper amounts for obsolescence. Advertisers strive frantically to secure and to hold markets.

This is no passing phase in economic life. Instead the pace will probably increase and be ever harder to control. Science is now placed at the disposal of business more than ever before. Not only are the economists more active and aggressive than ever, but workers in all other fields of knowledge are giving their assistance. Physics, chemistry, mathematics, botany, zoology, psychology and the rest are participating in man's attempt to conquer nature and to make their findings of practical and of immediate value to all. The effect is a rapidly cumulative one.

Though this development is to be welcomed, there are difficulties created by other changes. One is that to-day more productive activities than ever before require a large investment of capital and consequent heavy overhead costs. When perhaps 60 or 70 % of the expenditures of a business enterprise are for overhead and only 30 or 40 % are variable in their nature, the effect of any loss of business is intensified. Slight increases or decreases in sales are important. Markets must be secured and held at all costs. Competition is intensified and more bitter, unless, of course, business combinations are formed. But even a complete monopoly in any one line solves few and perhaps no problems, since the producers of any commodity or group of commodities must compete with all others for the "consumer's dollar."

Still a third change is the decline or, as Mr. J. M. Keynes has put it, "the end of *laissez-faire*." Mr. G. D. H. Cole has said: "It looks to-day as if the Victorian epoch of *laissez-faire* were but a brief interlude between two long periods of collective regulation." For a century or so during the heyday of British economic supremacy an unrestrained individualism was dominant and met with approval. That time has passed. No longer is the "economic man" left to the guidance of the "invisible hand." Social or state control and "economic planning" on a national scale have appeared. Russia is the outstanding expression of this movement, but what has come to Russia has come to others as well in different forms and in varying degrees.

These three changes—the increasingly dynamic nature of modern life with its accelerated tempo, the larger percentage of overhead costs in production, and the disappearance of *laissez-faire*—are forcing attempts at international co-operation, but at the same time making it more difficult.

Co-operation is clearly of increasing importance. Large industrial organizations whose managements are under a merciless pressure because of unwieldy organization and heavy overhead costs are in a dangerous position. Markets must be secured and held. No amount of business is too small to be significant, for a very slight decrease of income may make the difference between success and failure. Every effort must be put forth and assistance of all kinds must be secured. The economic battle is between giants.

And in this struggle the modern state is of growing significance. No longer are governments limited to the performance of but a few duties. Their tasks have grown both intensively and extensively. Every phase of domestic economic life is coming under their control, and among their activities is that of giving assistance to their nationals in their economic competition with the nationals of other countries. The tendency is for the economic life of each country to be organized more and more closely and in opposition to the similarly organized economies of other countries.

The expressions of this are numerous and need only be mentioned to be appreciated. Emigration and immigration are discouraged or facilitated as real or fancied national welfare may suggest. The exportation and importation of commodities are aided or hindered by tariffs, subsidies, bounties, quotas, and otherwise. Investments at home or abroad are encouraged or restrained. The power of the state in our modern economy has greatly increased.

Partly because of its own size and power, and partly with this state aid, modern business has new and startling aspects. Even in the United States and in Great Britain, where individualism is still strong, this is serious. But it is in a country like Russia that the potentialities, if not the actualities, are most obvious. For example, dumping is a common practice and may be serious, no matter by whom it is practised. It is effective if undertaken by the nationals who can sell at high prices in the domestic market with the protection of a tariff barrier against reimportations. Also it is aided if the concern in question manufactures by-products and can make some of its output carry through high prices an unduly large share of the overhead costs. If a whole country is organized the possibilities of such action are tremendously increased. And, while Russia is the present outstanding illustration, the tendency is everywhere present. The disappearance of *laissez-faire* and the growth of socialism in all of its varieties, from Communism to Fascism, is creating a new situation whose seriousness is gradually being realized. In the international or world field its possibilities are appreciated by very few.

Within each country the need for controls is increasingly evident, and individualism is receding. Competition is lessening, and planning is being tried even though the results in many directions are far from encouraging. In world affairs there is as yet no accurate diagnosis, to say nothing of solutions. The world is increasingly in need of devices for securing and maintaining economic stability, since changes are coming with such rapidity. Our economic structure is discouragingly rigid at a time when more flexibility and adaptability are required. As yet the trend is toward a greater nationalistic control which intensifies the objectionable qualities and offers but little hope for better adjustments.

It is, of course, true that similar if not entirely identical problems are present in the political realm. And in both there is discernible a trend which may be inevitable and may even be encouraging, although it clearly has its perils. This is the growing tendency toward larger regional groupings. Some of the movements, like that toward the Danubian Union, to say nothing of the more grandiose plan for a United States of Europe, have thus far been abortive. But the Ottawa Conference has seemingly given a new significance to the British Commonwealth as an economic unit by adding to the complicated network of imperial preferences.

Perhaps such groupings as these are a necessary next step. It may be that we cannot pass immediately from the present state of intense nationalism to a world economy. But the perils of this intermediate stage are great. Larger and more powerful economic units are being brought into existence. The dangers arising from their size may be so obvious as to force prompt compromises between them in their economic struggles. If this does not occur, the strains from which we now suffer may be intensified. If large regional groupings must precede a more complete world economy, we may hope that the transition period may be a short one.

Returning to the World Economic Conference and its problems, we may observe that the larger issues facing that gathering are doubtless far beyond its powers. Probably a prompt appreciation of all that is involved and speedy adjustments are beyond any human power at the present time. The Conference may, in preliminary discussions and in its final report, make a few minor and exceedingly worth while settlements, lessening the strain here and there. The major issues are impossible of solution at any one brief conference or at the present time. There is far more involved than a mere correcting of the balance of payments of the United States or of any other country. These corrections should, if possible, be made. Even more vital steps should be taken to revive business activity as promptly and as fully as possible. But no matter what is done, the broader issues will remain as a complex problem with which we must wrestle and for which no one as yet has a solution. We do not yet know much about organizing and operating the world as an economic whole.

ECONOMIC STABILIZATION

J. PEDERSEN, *Institutet for Historie og Samfundsøkonomi, Copenhagen*

1. DEFINITION

Some economists seem to identify stabilization of what they call "the general price level" with economic stabilization. At this stage I do not want to discuss whether such a thing as a general price level exists, and if so, whether it would be of interest to anybody or relevant to any purpose, whether there is any possibility of controlling it, or whether its stabilization is, in fact, identical with economic stabilization. For no matter how these questions may be answered, I think it will be generally agreed that the stabilization of the level of a certain group of prices at any rate could not be considered as an end in itself. Only in so far as the behaviour of the price level is connected with some phenomenon more economically relevant could it claim the interest of economists. But if that is the case it seems natural not to express economic stabilization in terms of price level, but in terms of some more relevant economic phenomenon.

The object is therefore to find a phenomenon the stabilization of which by general consent will be found desirable, no matter how the price level may behave. Such a phenomenon is, I think, economic activity, meaning by this a state of affairs in which the productive resources of individuals or economic units may find normal employment, i.e. a state of economic equilibrium.*

I therefore define economic stabilization as the stabilization of economic activity in the above-described sense.

2. ECONOMIC DISTURBANCES

Stabilization implies disturbances or disturbing forces. That such forces exist and always have existed is obvious. In a world divided up into numerous states, where the right of private property is recognized, where profit is the incentive to economic activity, where production is spread over millions of individual firms and to a large extent carried on by means of hired labour, and where consumers within the limits of their income are "free" to buy whatever they please, subject to propaganda and the whims of fashion, where, furthermore, climatic conditions greatly influence the volume of certain products, and where technical changes occur, it is inconceivable that profits and thereby economic activity should not be affected. To this should be added the important legal and psychological forces, manifesting themselves in panics and political disturbances.

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* This does not imply that there is no unemployment or no unused capacity; for the monopolistic intensity may require that equilibrium, i.e. a state in which no change is wanted, may be identical with some unemployment, which would not exist if there were a complete absence of monopolistic mentality.

In fact, profit expectations must be subject to change almost every day, and if, nevertheless, major disturbances do not frequently occur, it can only be explained through the working of the so-called law of large numbers. The forces which affect the economic system are generally individually small and enormous in number, working in opposite directions and thus cancelling one another. Occasionally a number of small influences happen to be uncompensated, or major disturbing forces appear, with the result that the trend of economic activity is changed.

Consequently, forces disturbing profit expectations, and thereby economic activity, cannot, under the present order of human society, be avoided; and if economic stability is to be attained, it is necessary to eliminate or neutralize these disturbing factors.

3. MEANS OF STABILIZATION

The general assumption of the following discussion of means of stabilization is that the essentials of the present order of society should be preserved; these are principally: international trade, extended private property, numerous economic units, profit as a guide to production, existence of a wage-earning class.

Besides these general assumptions it is convenient to discuss the subject under two different special assumptions, namely: (*a*) an international monetary system, i.e. practically constant rates of exchange, and (*b*) national monetary systems, i.e. free exchange rates.

(*a*) (1) *The Stabilization of the Price Level*

Let us begin by discussing stabilization of the price level as a means of economic stabilization. It should be stated at the outset that, strictly speaking, there is no general price level. The existence of a general price level would imply that there was some force, say the amount of monetary income in society, which affected all prices equally;

if that were the case, the variation in the price level could be ascertained by a simple arithmetical average of the percentual change of the price of each individual commodity from one point of time to another, for, if a large number of commodities were considered, the forces affecting the individual prices could be expected to cancel out.

On the other hand, if there really were a general price level in the above sense, it would be quite immaterial to our problem, for its fluctuations would not affect economic activity at all; it would only mean that all incomes and prices had to be multiplied by a certain factor, leaving the relative prices unchanged or only changed for other than monetary reasons.

As all will agree, however, there is no such general price level. What is generally meant by the term "price level" is an average, based either on a rather small group of prices which could not at all be considered representative, or on a larger group of prices, including a number of sub-groups of a very different behaviour such as to make an average, no matter how its component parts were weighted, extremely equivocal and perfectly useless for our problem and, I think, for any problem.

Further, it has been pointed out time and again in recent years that even if there were a price level its stabilization would not mean economic stabilization, because variation in "productivity" would produce alterations in profits and consequently in the composition and extent of economic activity, thus initiating cumulative processes and causing booms and depressions. This consideration is, however, not very important; for, as has been said, there is no general price level.

The prices of various commodities and services react very differently to changes in conditions of supply and demand and to monetary or political disturbances, and it is to these differences in reaction that the whole interest in price changes attaches, not to the changes in average prices. This different velocity of reaction of the various prices or groups of closely related prices is of great importance to a number of economic problems and deserves a very detailed study. For the present purpose, however, prices may roughly be divided into two large categories, viz., on the one hand, prices with a very low velocity of reaction, such as wages, prices of services furnished by State or municipalities, prices of commodities produced by monopolistic organizations and prices of individualized commodities, *gebundene* prices as they are called in German; and on the other hand, prices with a high velocity of reaction, such as highly perishable commodities, bulky raw materials, etc., "freie" prices the Germans call them.

During a depression the free prices always fall and during a period of rising prosperity at least some of them always rise. If stabilization of prices could be used as a means of economic stabilization it must be the free prices which should be kept stable; for the rigid prices have a great tendency to keep themselves stable and yield only to great and continued pressure. This is especially true when the free prices move downward; upward, the rigid prices are more flexible; but still they generally lag somewhat behind, even during an upward movement.

As profit expectations and economic activity depend, not on an average of prices, but on the relation between prices, it is clear that if the free prices could be controlled, economic stability would be attained; hence the question arises: Can these prices be controlled?

(*a*) (2) *Control of Free Prices by Credit Policy*

The Wicksellian theory of the relation between the rate of interest and the "price level," which gradually has gained almost universal acceptance amongst economists in the course of the last thirty years, implies that by the alteration in interest rates the price level (that is, the level of the free prices) may be controlled.

I have not the space for a careful criticism of that theory; I can only say that in my opinion it does not hold true. The Wicksellian ideas are very valuable in many other respects, but they give no solution to the question of how the level of the free prices could be controlled. By raising the rate of interest to a certain height it may always be possible to produce a fall in the free prices, although the rise in interest rates needed to produce that effect occasionally must be so high that its application is outside practical policy. This be as it may, however, the essence of the matter is that even if a boom is stopped by raising interest rates or otherwise restricting credit, economic stabilization will not ensue; on the contrary, a cumulative process in the opposite direction will follow. For on account of the rigidity of certain parts of the pricing system the contraction of credit will not lead to a reduction of the level of income or costs, but to a partial stoppage of industry, which in turn will cause a fall in the free prices.

Whereas it may not be denied that a rise in the free prices could be checked by means of credit policy, it must be admitted that a fall in the free prices cannot always be checked by reducing interest rates. Rates of short-term loans can hardly on a commercial basis be reduced below 1 or 2 %, and the marginal profit expectations on short-term investments may quite well sink to a distinctly negative quantity.

As regards long-term investments, such as, for instance, house building, the prospects that a large reduction in interest rates will revive activity are somewhat better, but the rates on such loans, dependent as they are on the expectations of the development of interest rates in the distant future, can hardly be reduced much below what has been the normal rate for such loans in the past. This has been clearly demonstrated by recent experience.

Thus the increase in money income which is a necessary condition for a revival of economic activity and a rise in the free prices cannot always be produced by banking policy.

(*a*) (3) *The Stabilization of Prices by Public Financial Policies*

There are, however, other means of disbursing purchasing power to consumers and expanding or contracting economic activity: Subsidies, taxes, public works, etc.

It must be remembered, however, that under the assumption of this section, namely, constant rates of foreign exchange, none of the above means could be applied to any very large extent—at least not in debtor countries—unless they were internationally applied; for an expansion taking place in one country and not in the others would in the first place lead to a strain on the rates of foreign exchanges, and unless sufficient borrowings could be practised, which is not always the case, the expansion would be limited. In the second place, it might be possible to stabilize economic activity by an expansion by means of foreign borrowing, but not prices; for most of the free prices are internationally determined and therefore are dependent on the exchange rates.

The stabilization of the free prices therefore presupposes a very close co-operation between the nations. Experience gives no indication of such co-operation, and I do not see any prospect of it in the future either.

(*a*) (4) *Stabilization of the Free Prices by Custom Duties, Export Bounties, etc.*

A study of the tariff history of the different countries will lead to the result that custom duties, bounties, and other restrictions on foreign trade to a large extent are *Kinder der Not*; they are introduced when prices are falling for the purpose of keeping the price fall outside of the frontiers of the national unit. There are exceptions, but this is the general rule. Thus they are rather symbols than causes of economic disturbances, but it may hardly be denied that by repercussions they often aggravate the evil which they are intended to cure.

The idea underlying these measures is, nevertheless, the idea of stabilizing the free prices. They are, however, not efficient for that purpose. A State may succeed in stabilizing certain prices by these means. Thus Germany and France for a long while did succeed fairly well in stabilizing the price of wheat by a combination of duties and bounties, but at the same time prices affecting other branches have been falling, and as the commodities, the prices of which have been kept up by the duties and bounties in one way or other, are raw material for other branches of production, they have probably served to further depress prices and economic activity. All that has been achieved is, in fact, that the list of fixed prices has been enlarged and thereby the downward pressure upon the prices remaining free has been increased.

The realization of the object requires a system of duties and bounties comprising all commodities in the group of free prices, and adjusted in such a manner that the relation between them is retained in the equilibrium position. If that could be attained the depressing effects on international trade which rightly are ascribed to these measures would not necessarily ensue; they would only do so if other countries retaliated against them, and for such retaliations there would obviously be no real reason, as the international trade of the country in question would not be diminished on account of the measures but rather increased because of the greater economic activity which they were supposed to produce.

The trouble is, however, that such a "solidarity" system of tariffs and bounties could never be devised. Further, the policy, if rational, implies that duties and bounties should be lowered when the free prices outside the borders rose to their former level, but experience has shown that such a reduction very seldom takes place.

Thus it may be concluded that stabilization of prices by duties or bounties can hardly be attained, and, as we also had to conclude that the conditions for controlling the free prices by credit policy were absent, the stabilization of economic activity by means of price stabilization seems to be very problematic.

(*a*) (5) *Stabilization by Means of Increased Flexibility of Prices*

We have seen that economic stabilization can hardly be attained by stabilizing the free prices, and we shall therefore now discuss the question of economic stabilization by means of making the rigid prices flexible. It is *a priori* clear that a certain flexibility in the rigid prices will serve to maintain such a relation between all prices as is necessary to stabilize economic activity.

The prices in the rigid category are very numerous; they include wages, public charges, cartel prices, and a great variety of semi-monopolistic prices which could not be separately enumerated. If all the monopolistic organizations and individuals exercising monopolistic or semi-monopolistic power could be induced for this purpose to adapt the prices which they control to the fluctuations in the free prices, with a view to maintaining a constant volume of production, there can hardly be any question that economic stability could be attained in that manner.

Such a change of policy could hardly be expected, however. In the first place, the machinery of these organizations is so unwieldy that speedy adaptation is impossible; often the prices are even bound by long contracts. Secondly, in the case of the trade unions there are certain ideological obstacles in the way of a flexible policy; on the whole, the task of a trade union leader is more one of mass-psychology than of economic calculations. As to the prices which the State directly controls, financial considerations prevail and make a flexible policy difficult. Thirdly, even if the policy is based solely on economic considerations, a flexible policy would not necessarily result. It would depend on whether such a policy would lead to higher net profit, smaller loss, or other economic advantages to the persons or group of persons whose interests are involved, and who have the power to decide.

Economic stabilization, therefore, could hardly be brought about by adaptation of the rigid prices to the flexible prices except through public control.

It was one of the assumptions of the present discussion that the essentials of the existing order of society should be retained. Does State control of the rigid prices conflict with this assumption? I think not. The idea of letting prices and profits regulate economic activity obviously implies that prices are free market prices, on the whole formed through free competition; only under such conditions is there supposed to be a community of interests between the individual and the whole of society. It is, therefore, not inimical to the present order to regulate prices which are not determined by free competition; on the contrary, a public control of such prices seems to be the only way of preserving that order if great disturbances and a subsequent collapse of the system shall not ensue.

The question is, however, whether it is possible to administer such a control. As far as the control of private economic enterprises exercising monopoly or semi-monopoly power is concerned, it seems not impossible that they could be put under the supervision of a State organ which controlled their price policy. Neither ought it to involve insuperable difficulties to adapt the prices or charges, including the wages or salaries of the State employees, directly determined by the State or other public authorities to the purpose of maintaining economic equilibrium.

The real difficulties arise in connection with a control of the wage policy of the trade unions. There can hardly be any doubt that these unions are true monopolistic organizations and that interference and control would be fully justified with respect to economic stabilization; but will it be possible in a democratic State, in which the votes of the wage-earning classes are a most powerful political factor? And even if that could be ignored, would it be feasible to force a large class of people to work under conditions which the members of the group themselves thought unjust?

I shall only put—not answer—that question, and add that if such control and forced adjustment cannot be carried out, I think there is no hope of attaining economic stabilization under the present order of society and under the assumption of an international monetary system.

(*b*) *Means of Stabilization under the Assumption of "Free" Exchange Rates*

Under this assumption there is, I think, a better prospect of attaining economic stability. A system of free exchange rates, i.e. a national monetary system, is in closer harmony with the indisputable fact that the world is divided up into nations, that the economic conditions of these States vary very considerably, and that unselfishness and close co-operation between them is an unrealistic assumption. It is clear that the smaller the States the better are the prospects of stabilizing the national economy under a system of free exchange rates. If the world were all united in one State, conditions would mainly differ from a state of affairs in which a large number of States are united by a common monetary system in the respect that a more intimate co-operation between the different economic sections would be practised.

Recent experience has proved that to a State of very great economic importance like Great Britain, the alteration of the exchange rates, for instance, has not had the effect on internal prices which most economists had expected. With respect to a comparatively large number of commodities the English market was so important that sterling prices did not rise as a consequence of the rise in the foreign exchange rates; the fact that a number of other States depreciated their currency has also worked to cancel the effect to the individual countries. Further, it must be remembered that England and the other countries abandoned the gold standard under very peculiar circumstances; the spirit of commercial war was at work in every country, and most of the countries that abandoned the gold standard have, nevertheless, carried on a currency policy as though they had retained the gold standard; they have been trying to peg the rates of exchange, either by credit contraction or by exchange restrictions, tariffs, bounties, and quotas. There has, in fact, only in few cases been a whole-hearted abandonment of the idea of fixed exchange rates.

If the policy of free exchange rates had been the normal policy of the nations, things would probably have developed differently. The liberation from the obligation to maintain definite exchange rates would have left the national units free to expand production and credit, and this expansion would also have led to an expansion or retention of international trade.

At present there is a great fear of what has been called a competition in depreciation, and the States retaliate against this competition. They are unaware of the fact that it is not this competition that destroys international trade, but the retaliations against it. If the competition in depreciation were left to itself it would mean that the individual States were maintaining or increasing their economic activity and this would inevitably lead to a maintenance or increase in international trade. An increase in exports brought about by currency depreciation would, of course, also lead to an increase in imports; for even if an export surplus is needed for repayment of debt or payment of interest, any export over and above the amount necessary for that purpose would be balanced by increased imports.

I do not think that the effect of a system of national currencies could be judged upon the basis of recent experience, where economic warfare has dominated international economic relations.

But even if national currency systems were considered a perfectly normal feature of international intercourse, the effect of it would be the less the larger is the national unit. To small countries it would—and will—even under the present chaotic conditions, be of very great importance.

Under such a system there would be a far better prospect than under an international monetary system of stabilizing the flexible parts of the pricing system, the prices in question being in the main internationally determined. This would be true even of the large countries, because they would be in a position to stimulate internal economic activity without worrying about the exchange rates. And the smaller countries would, for the same reason, be able to mitigate the devastating effect of a general fall in the internationally determined prices by adjusting their rate of exchange.

If, for instance, a heavy fall in the prices of the main exporting products of a country occurs, the usual course under the gold standard is that the deficit in the balance of transactions with foreign countries is covered by borrowing abroad and, if that cannot be done, credit contraction, with subsequent curtailment of economic activity, is resorted to. If the exchange rates can be altered it becomes possible not only to diminish the price fall but to curtail imports and encourage exports and, by raising prices of import and export goods, to distribute the burden of the unfavourable terms of trade more equally over the whole population, and to decrease consumption to the level which can be supported by the current national income, thus avoiding borrowing abroad for consumption purposes.

Conversely, when the terms of trade improve, rates of foreign exchanges are lowered, a rise in prices is prevented, and the increase in national income caused by the improvement is distributed more evenly over the whole consuming public.

The principal difference between a system of constant and varying rates of exchange is that, under the former system, the only way of attaining economic stability is a forced adjustment of the rigid parts of the price system to the flexible parts of the system. This, however, was shown to be very difficult, if not impossible, whereas under the latter system the rigid prices are allowed to follow their inherent tendency of being stable.

In fact, the object of the national monetary policy should be, not the stabilization of exchange rates, as under the gold standard system, but the stabilization of economic activity and the level of money income. There should never be a rise or fall in wage rates, wages taken in the widest sense of the word. Increase in national income would not show itself in rising money-incomes but in lower cost of living, and conversely a decrease in productivity would not mean a fall in national money income but in higher cost of living, and exchange rates should be so adjusted that the employment of resources is kept approximately constant. The system would, in fact, be equal to exchanging the gold standard for an income or, if you like, labour standard, and it would conform to the ideals of those who hold that a stable standard of value is equal to a state of affairs in which the monetary unit can buy, not the same amount of some combination of commodities, but a constant part of national income. It would, in fact, mean what has recently been termed the introduction of a neutral monetary system.

The question is, however, whether such a scheme can be worked. On this question there is room for grave doubts.

Is it, for instance, possible to control a "free" currency? Is it possible to control the level of incomes?

As to the first question there is a number of difficulties. The system will, of course, not necessitate fluctuating rates from day to day or week to week; all that the system implies is an adjustment at comparatively long intervals of time. Nevertheless, the fact that rates may change will cause speculation when such conditions develop which justify a change.

Do the authorities have the means to cope with such speculation? It is clear that in order to be able to do so the monetary authority must have a considerable amount of foreign currency at its disposal, putting it in a position, if a wave of speculation sets in, although there is no real reason to think that a change of the rate will take place, to keep the rate stable in spite of the speculative demand and supply. In case of a tendency to capital flight proper, powers to control transfer of funds may be necessary.

If there is a large degree of co-operation between central banks in the different countries the effect of such capital flight may easily be frustrated; if, as at present, there is no such co-operation, a State control of transfer may be necessary.

If, on the other hand, the change in demand for foreign means of payment is caused by an appearance of such symptoms which, according to the policy adopted, would cause an alteration of the rate, it would seem the natural course to alter the rate immediately in order to meet speculation, even if it were a little earlier than had been contemplated.

There is some reason to believe, however, that if it is the declared policy of the State not to allow a rise or fall in the level of money incomes, and if the government has power to carry through such a policy of stabilization of money incomes, large-scale transfers of funds will not occur, for such a fixation of incomes will prove an assurance that inflation or deflation proper will not ensue. If the level of money income is kept constant, a rise in prices caused by a rise in the rates of foreign exchange will only curtail consumption, but cannot lead to a cumulative rise in prices. Conversely, a fall in the rates will not cause a cumulative fall in prices but an increase in consumption.

But here we arrive at the other question: Is it possible to control the level of incomes?

If the fall in free prices is checked by raising the rates of foreign exchange, there is no reason why the rigid prices, including the price of labour, should ever fall. Experience has shown that it requires great pressure to produce such a fall. Wages especially have shown very great resistance against reductions; and if the unemployment which usually is caused by a fall in the free prices is prevented, there is absolutely no reason why there should be any tendency of wages to fall.

In the case of rising prices the matter stands very differently; for wages do not show the same power of resistance to an upward pressure. The forces that press wages up are, however, not so much a rise in prices as a decrease in unemployment below what the trade unions consider normal. But such a decrease in unemployment is due to increase in prospective profits; and, as profits are affected by the rate of exchange, it seems possible to adjust exchange rates in such a manner that the demand for labour is held within such limits as will prevent a demand for increase in wages. Besides the adjustment of exchange rates, it will also be possible through credit policy to influence the demand for labour so as to prevent a rise in wages.

In this connection it is worth noting that the credit policy under the system here described would play a more modest rôle than it has done under the gold standard system. The object of credit policy will not, as under the old system, be to press down the level of costs, including some of the most rigid prices, but only to equalize saving and investment or to make possible such exchange rates as are necessary to ensure normal employment of resources.

There is, however, a psychological fact which is worth taking into consideration in connection with these questions. It is the mysterious power which the mere increase in money income exerts over a Western mind. Most people will consider themselves richer when their money income is increased, even if that increase is accompanied by a still larger increase in the price of what they have to buy for their money, than if money incomes and cost of living are kept unchanged, and they will also consider themselves poorer if money incomes are reduced, although perhaps the cost of living is reduced still more. Will it be possible, then, to prevent a demand for higher wages although there is moderate unemployment? Will it not be necessary, if wage rates are to be kept stable, to maintain economic activity on a rather low level? Perhaps that is so, but, if that is the case, I know nothing better than to give to the State the power to control the policy of the trade unions and their wage policy; but that, of course, implies the same difficulties which were discussed in the preceding sections. I think, however, that much less interference will be needed than if wages should be adjusted up and down to correspond with the fluctuations in the free prices.

It is not to be denied, however, that the stabilization of economic activity by adopting a national currency system and adjusting the rates of foreign exchange, with the view of keeping the free prices stable and the level of money income unchanged implies enormous political and administrative difficulties; perhaps they could not be overcome.

As far as I can see there is, however, no other alternative than a system of fixed exchange rates combined with a control of monopolistic prices, especially wages, implying a compulsory reduction or rise according as circumstances require, or a system of free exchange rates and constant level of money income. If it should be concluded that both of these policies are Utopian, it is in my opinion equal to the conclusion that economic stabilization is Utopian.

The recurrent periods of booms and depressions are due to the different velocity of reactions of the various parts of the pricing system; and, if that difference cannot be eliminated, the instability of economic activity will continue.

A third alternative is the replacement of the fundamental principles of the existing order of society by a complete system of compulsory economy on the Russian model; that, however, raises a number of questions which are outside the scope of this article.

THE CONCEPT STANDARD OF LIFE

HUGO E. PIPPING, *Swedish School of Economics, Helsingfors*

THE definitions of the concept standard of life (or living)* are numberless.† One of the simplest is that of N. H. Comish: "The standard of living represents the number and character of wants customarily satisfied."‡ This definition seems at the same time too limited and too vague and, at any rate, in need of further explanation. In the present paper an attempt is made to give the concept a more precise character, and besides that to give it a wider sense. The main points of view considered may be enumerated as follows:

1. The influence of environment (class or group) upon the standard.
2. Ideal or actual standard.
3. Standard and size of family.
4. The concepts of a minimum standard and a standard of efficiency.
5. Leisure as part of the standard.
6. The durability of the standard.
7. How the standard changes and is measured.

The following is a brief examination of the points of view enumerated above.

1. It is evident that the concept standard of life must be referred to a class or group, or, possibly, in a wider sense, as an average of averages, to a whole nation. This quality of the concept has been pointed out, e.g., by Dorothy Douglas§ and W. Y. Sumner,‖ the latter giving the following definition: "The measure of decency and suitability in material comfort (diet, dress, dwelling, etc.) which is traditional and habitual to a sub-group." In a similar way E. E. Hoyt writes: "Standards of living are standards of status, of goods and services required to maintain a certain position as a member of a class, standards of the needs of status."¶ The problem of whether economic circumstances have played an independent role in the *origin* of classes may

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* I prefer the expression "standard of life" to "standard of living." Cf. J. A. Hobson, *Wealth and Life*, p. xxi.

† See the summaries by J. H. S. Bossard, *Problems of Social Well-being*, pp. 43 et seq., and by M. B. Hexter, *Implications of a Standard of Living*, in *American Journal of Sociology*, vol. 22, pp. 215 et seq.

‡ See Bossard, op. cit.

§ Ibid.

‖ See Hexter, op. cit.

¶ E. E. Hoyt, *Primitive Trade*, p. 112.

here be omitted. The fact remains that different classes or groups exist, with different material resources and different customs and traditions.

During a period these classes or groups are incessantly changing, but in the first place everybody entering a society as a member will find out and feel the inflexible and binding power of its prevailing rules and customs. J. W. Angell finds it characteristic that human wants are largely "predetermined." "They are based," he says, "on an accepted prior standard of consumption. Now it is, of course, true that the individual makes the group and that the group makes the standard. But any one individual usually finds the standard already made for him."* And G. B. Dibblee assures us that even "the obvious superfluities . . . take up a much larger part of the annual expenditure of the middle and upper classes than any of us would care to admit. Half the furniture of any house is mere mimicry of other establishments whose use is in display without beauty or comfort. Half the clothing of either children or adult is dictated by fashion and discarded before consumption."†

It may remain an open question whether and to what extent technical progress and the livelier communication between classes and peoples have caused a more widespread standardization. On the one hand, the monotonous life in a primitive society does not allow many variations, although the differences between different societies may be great enough; on the other hand, the standards in our days become more like each other over the whole world, from the Cape to San Francisco. "The growth of culture is a cumulative sequence of habituation."‡

Undoubtedly increasing knowledge in a way releases the individual from the domination of standards. Lack of information leads A to imitate the way of living of B, even if it does not suit him. But, on the other hand, increasing and more widespread knowledge, for example, of diseases and their causes, of food and its nutritive value, is accompanied by more standardized customs. Increased knowledge allows a more "consciously planned action"§ of the individual, and the more actions are planned, the more the way of living may be standardized. To this extent scientific progress has given man stricter and stricter dictates.

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* J. W. Angell, *Consumers' Demand*, in *Quarterly Journal of Economics*, vol. 39, p. 587.

† G. B. Dibblee, *The Laws of Supply and Demand*, p. 24. Cf. H. W. Stuart, *The Hedonistic Interpretation of Subjective Value*, in *Journal of Political Economy*, vol. 4, p. 67.

‡ Th. Veblen, *The Limitations of Marginal Utility*, in *Journal of Political Economy*, vol. 17, p. 628.

§ F. H. Knight, *Risk, Uncertainty and Profit*, p. 60.

The dominating influence of standards has been attested by many authors and by daily experience. Men's strivings are not directed towards nourishment, shelter, etc.; what they desire of these things is the conventional kinds and amounts. "Men of one sociological group will starve and freeze before they will adopt the ordinary diet and garb of other groups."* One's standard, or better the standard of one's group, nobody will give up;† its binding power is similar to that of legal or moral codes.‡

When difficulties arise in maintaining the standard, one limits oneself to preserving its visible marks. Lujo Brentano mentions as an example hereof Italian noble families who freeze and starve in their palaces, the only signs of their former standard.§ In the lower classes living closely together, it is more difficult to keep out the indiscreet eyes of the next-door people, but in their circles we also find proofs of brave minds "keeping up their position."

2. It has been suggested that the determining factor in standards should be, not the way an individual lives, but his conception of the way he wishes to live ("the embodiment of his desires").|| Standards are thus explained not as actual but as ideal. W. C. Waite makes, according to Hazel Kyrk, a distinction between the "level of consumption" (= "the actual way of living") and the "standard of living," which "is not the best imaginable way of living, but . . . the way which people feel is incumbent upon them to realize and without the attainment of which they will be oppressed by a feeling of dissatisfaction."¶

Taken strictly, every conception of a standard is ideal, in so far as every realization of a fixed end is in some respects unsatisfactory. The standard in a class or group varies individually; there are always deviations from the average. But still we are entitled to say that the average standard towards which the members of a group, consciously

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* F. H. Knight, *Ethics and the Economic Interpretation*, in *Quarterly Journal of Economics*, vol. 36, p. 463.

† Ezra Bowen, *A Hypothesis of Population Growth*, p. 104.

‡ Hazel Kyrk, *A Theory of Consumption*, p. 171.

§ L. Brentano, *Versuch einer Theorie der Bedürfnisse*, reprinted in his book *Konkrete Grundbedingungen der Volkswirtschaft*, p. 130.

|| J. H. S. Bossard, *Problems of Social Well-being*, p. 43.

¶ W. C. Waite, *Economics of Consumption*, pp. 116 et seq.

or unconsciously, are striving and about which the individual's way of living is oscillating, is real, actual, not ideal. "In short, standards . . . must . . . be taken as the actual, not the ideal."*

If we further say that "it is only possible to build upon foundations that exist,"† it is not at all irreconcilable herewith that individuals aspire to higher classes with better standards or that a whole class strives to enlarge its standard. Whether a rapid circulation from class to class takes place or a moving upward of all classes, the inclinations are generally in the direction of the "next social grade,"‡ of the habits and customs of "people slightly above them in the income-scale,"§ which means that "actual" standards also become the pilot stars when standards are progressing.

The fact that standards can be conceived only as actual or real does not exclude our knowledge of the prevailing standards being very defective. For the purpose of examining standards and their classification, far more and better statistical and social investigations are required than those actually available.

3. The size of the family is so closely connected with the standard of life that there are definitions such as R. T. Ely's: "The number and character of wants which a man considers more important than marriage and family constitute his 'standard of life.' "|| A cognate formulation is that of H. P. Fairchild: "the average amount of necessaries, comforts and luxuries enjoyed by the typical family in that group."¶

Regarding Ely's definition, it may be remarked that in fact marriage in many cases is part of the standard itself, not only among primitive peoples for whom marriage is obligatory, but in many places among farmers, etc. In such cases regard can be taken to the economic position mainly in the postponement of the marriage. Further, it cannot be taken for granted that the standard of the man himself is the decisive point. I am rather inclined to believe that the economic doubts of a man in love concern far more the future standard of his wife and

* N. Dearle, *The Cost of Living*, p. 37.

† N. Dearle, op. cit., p. 37.

‡ Hazel Kyrk, *A Theory of Consumption*, p. 261.

§ D. H. Robertson, *A Study of Industrial Fluctuation*, p. 135.

|| R. T. Ely, *Outlines of Economics* (1900), p. 181. A similar definition by T. N. Carver, *Thrift and the Standard of Living*, in *Journal of Political Economy*, vol. 28, p. 784, reprinted in his book, *The Economy of Human Energy*, p. 35.

¶ H. P. Fairchild, *Outlines of Applied Sociology*, cited by J. H. S. Bossard, *Problems of Social Well-being*, p. 43.

his descendants than that of himself. The marriage is postponed and (or) the number of children limited until the parents know that they are able to give a child or several children the education necessary to maintain their former standard or to attain a better one. This point of view is closely connected with the circumstance observed below that a certain degree of durability—perhaps through several generations—is implied in the concept standard of life.

We may be allowed to suppose that a general accommodation to available resources and claims to certain standards have taken place when customs concerning the size of the family arise. But the arising of "typical" families (e.g. of the two-children system) is in the first place dependent upon the existence of customs, which means that an average-sized family becomes part of the standard and not that the number of children are determined by the desired standard. And even if there is an "average family" it may be observed that there can be no "normal family," as Alexander Gray points out. "All families should begin with no children under the age of sixteen, and do end at the same figure, but between the beginning and the end they may pass through many stages. There can thus be no measure of the normal needs of the normal family, since the needs of the normal family are subject to a process of expansion and contraction."*

Summing up, I am inclined to look upon marriage and children as ingredients in the standard of life, instead of the standard as determining the size of the family.

4. By several authors the standard of life has been defined as a *minimum standard* or a *standard of efficiency*. So, e.g., J. L. Gillin gives the following definition of a standard of living: "the minimum below which the consumption of the family must not fall, if that family is to function properly as an independent and useful group in the community. It is the measure of consumption which supplies enough to enable each individual in that family to sustain himself in health and efficiency as producer, and to be independent of the help of others."† And N. Dearle states "that there is, for each rank of industry . . ., an income that is necessary for merely sustaining its members, while there is another and larger income which is necessary for keeping it in full efficiency."‡

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* A. Gray, *Family Endowment*, p. 13.

† J. L. Gillin, *Poverty and Dependency*, cited by J. H. S. Bossard, *Problems of Social Well-being*, p. 43.

‡ N. Dearle, *The Cost of Living*, p. 15.

The first concept, that of a minimum standard, belongs to the category of "ideal" standards, which are not standards at all. There are apparently actual standards which do not include all commodities that are commonly looked upon as necessary. The fact is regrettable, but still undeniable, and it would be unreal not to take into account such poor ways of living as represent standards for wide circles of the population.

But what does "necessary" mean? Necessary to maintain what? In the first place the only object can be to maintain a standard of efficiency. But, again, efficiency for what purpose? The only answer can be: to maintain efficiency for a *certain* kind of labour, different in different professions. But still the efficiency is, in the first place, a function of the standard,* and not the standard determined by the efficiency "needed." If greater efficiency is required it takes a good deal of time before the standard changes and becomes accommodated to it, and the result attained can after all never be the best, taken absolutely (a maximum), but only relatively to the given resources and the economic scheme as a whole.

Further, efficiency is determined not only by physiological factors, which confirms the supposition that efficiency is a function of the standard. R. C. Chapin points out the role played by the "conditions under which it (the income) is earned, economic and social environment."† E. T. Devine assigns still more items to the standard: "that spiritual atmosphere, that indefinable force, compounded of income and what we buy with it, ideals and tastes and the environment provided by our fellows, which is something more than the sum of its parts."‡

These mental factors become within a short time "a part of life,"§ part of the standard, and thus necessary for the performing of the amount and kind of labour in the group. According to T. N. Carver, the consciousness of working in less satisfactory circumstances than other people (with inferior kinds of tools, machines, etc.) tends to reduce the capacity for work.|| Thanks to the modern means of communication, the knowledge of various working conditions is easily

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* T. Parsons, *Wants and Activities in Marshall*, in *Quarterly Journal of Economics*, vol. 46, p. 120.

† R. C. Chapin, *The Standard of Living among Workingmen's Families in New York City*, p. 255. Cf. P. H. Nystrom, *Economic Principles of Consumption*, p. 246, and F. C. Benham, *Economic Welfare*, in *Economica*, vol. 10, p. 181.

‡ E. T. Devine, *Normal Life*, p. 157.

§ N. Dearle, *The Cost of Living*, p. 16.

|| T. N. Carver, *Principles of National Economy*, p. 579.

spread over large distances. Thus actual standards in one part of a country or of the world may determine standards in other parts and determine the standard necessary to maintain efficiency, and thus efficiency becomes a function of the standard.

Consequently the traditional classification into necessaries, comforts, and luxuries becomes highly arbitrary; they are almost equal parts *in* the standard, but what is part of one standard may be an accidental item of luxury in another. "It is well, however," according to Professor Carver, "to be rather liberal in our ideas as to what is necessary in order to maintain a man's working capacity,"* or, in other words, to be exacting in relation to standards.

As a matter of fact society has taken steps to maintain minimum requirements in the case of dwellings, quality of food, etc., of all classes or groups. It is true that such statutes concern the producer or seller, but their object is to prevent the consumer from falling to a standard which at the time is considered to be injurious. The efficacy of such prescribed minima is often perfect, but it is out of the question to speak of them as a standard before they are generally accepted and realized. Consequently the standard of life cannot be defined as a desired minimum standard. And since the efficiency is a function of the standard itself, it is impossible to define standard of life as a standard of efficiency. The minimum standards and the standards of efficiency belong to the "ideal" standards, the suitability of which for our purpose has been already criticized.

5. In the preceding paragraph it was shown that non-physiological factors (e.g. working conditions) are also to be counted as part of standards. Among these conditions *leisure* may be put under a special heading.

Leisure is apparently not identical with idleness. A certain amount of leisure is required in order to remove bodily fatigue, to take in and digest food, and, on the whole, to realize the consumption belonging to the standard. Further, leisure is required for the sake of marriage, education of children, etc. The amount of leisure available plays undoubtedly a prominent part in our judging of the standards. It is true that in some cases it may be fashionable not to have much time to spare, but usually the amount of leisure is a visible measure of the height of the standard.

It is not, however, an easy task to fit leisure into the standard. As E. T. Devine points out, "we may standardize the amount of leisure time which the worker shall regularly have at his disposal, but not the use which he shall make of his leisure."*

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* T. N. Carver, *Principles of National Economy*, p. 577.

The variations possible in making use of leisure time are theoretically numberless. But in fact there is a rather narrow margin of variation within the community. "The choice is as a rule limited to the things on sale, and among the things on sale, to those of which they can obtain information through the market. . . . But this freedom is in the greater majority of cases without practical effect," R. G. Hawtrey continues.†

There is no need here to reiterate the arguments exposed above concerning the dominance of custom. It may only be pointed out once more that the binding power of social influence is not limited to "necessaries," but that it also includes the using of the leisure time for various purposes. There are numberless shops and various prices, but when one has entered a shop—even the choice of shops is limited by distance—and has answered the question, e.g. what price tie is wanted, there remain only few possibilities of individual choice.

The problem of the position of leisure in standards involves other questions of importance. The amount of labour used has been described as a sacrifice in attaining the desired result, and economic action (or leisure) as a calculation of labour versus leisure, and, further, of the combination labour-leisure versus result.

Unfortunately, the many questions that arise in this connection can be touched upon only in brief.

It has been pointed out by several authors that individuals are influenced by reflexes, impulses, instincts, environment, and that they lack the calculating power.‡ That may be true in many respects, but is, however, false from the economic point of view. It can hardly be denied that rationality is implied in the very concept "economic action," or, at any rate, that rationality is "one principal criterion of the abstract type of action called 'economic.' "§ And, further, the economic sphere can hardly be separated from the non-economic. "All ends and motives are economic in that they require the use of objective resources in their realization. . . . In so far as the ends are viewed as given, as data, then all activity is economic."||

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* E. T. Devine, *Social Work*, p. 55.

† R. G. Hawtrey, *The Economic Problem*, pp. 202 et seq.

‡ See Z. C. Dickinson, *Economic Motives*, pp. 109 et seq.

§ T. Parsons, *Wants and Activities in Marshall*, in *Quarterly Journal of Economics*, vol. 46, p. 105.

|| F. H. Knight, *Ethics and the Economic Interpretation*, ibid., vol. 36, pp. 472 et seq.

To the calculus of labour versus leisure it has been objected that labour may be pleasurable and leisure tedious.* I do not find this remark very pertinent. Every kind of labour must sooner or later be accompanied by fatigue and feelings of pain. The point seems to be that different individuals and different occupations have different scales, but the existence of labour pain† cannot be denied. These scales are determined not only by physical or physiological, but also by mental and social factors, in the main just by customary standards.

Especially if we consider labour-leisure versus the results or ends, we must admit the hegemony of customary standards. Only in a few cases can we measure, exactly and totally, the effectiveness of labour (and leisure) by results. Further, the "economic law," as Knut Wicksell has shown, is impossible to formulate in such a way that we strive to get a maximum of results with a minimum of effort. The only logical formulation is either to get a maximum result with the given means or to get a given result with a minimum of effort.‡ But since the resources as well as the ends are incessantly changing and to a large extent interdependent, scarcely any of them can be taken as given. The starting-point must thus be combinations of labour-leisure-results, customarily approved and standardized.§

It is true that individuals can and do weigh the sacrifice of labour (or enjoyment of leisure) against the desired results (or dissatisfactions). But still, as a rule, we may question whether the man in the street has the opportunity of making such a choice. The maintaining of a standard in a given society and a given occupation requires a certain amount of effort. The combination labour-leisure-result is commonly given, not chosen. To the farmer the labour is a part of his consumption.|| The only choice possible is that between the different occupations, and even in that respect the choice, as is well known, is not always free. The

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* W. Keilhau, *Die Wertungslehre*, p. 149.

† The terminology of pleasure and pain (or unpleasure) may be used in spite of its defectiveness. The terms are, in fact, better than their reputation, in that the attaining of ends is *accompanied* by feelings of pleasure and vice versa. See A. H. B. Allen, *Pleasure and Instinct*, p. 273; Z. C. Dickinson, *The Relations of Recent Psychological Developments to Economic Theory*, in *Quarterly Journal of Economics*, vol. 33, pp. 396 et seq.; H. W. Stuart, *The Hedonistic Interpretation of Subjective Value*, in *Journal of Political Economy*, vol. 4, p. 70. Cf. also E. Westermarck, *Ethical Relativity*, p. 261. I hope to be able to give more details in another place.

‡ K. Wicksell, *Föreläsningar i nationalekonomi*, 1928, i, p. 2.

§ Cf. A. Marshall, *Principles of Economics*, 1920, p. 689, about "the standard of activities adjusted to wants."

|| S. N. Patten, *The Consumption of Wealth*, p. 40.

individual cannot possibly at every moment work through all the necessary calculations; he can only choose or pursue the different standards, accessible in the different occupations.

Whether we may look upon the given standard combinations of labour and leisure as results of long period calculations which reflect averages counterbalanced by human experiences of pleasure and pain may be left to the psychologists. The economist needs numerical facts and can get them only by the study of actual standards.

A consequence of the reasoning above is that the concept standard of life conceived solely as a standard of consumption is too limited. In consequence of the prevailing interdependence between labour, leisure, and results, the standard of consumption must be a part of the standard of life as a whole. I agree with A. B. Wolfe, who writes: "Standard of living, contrary to the conception of most writers on the subject, is a matter not only of the amount and kind of goods and services consumed but of the kind and amount of labour and other sacrifice involved in their production."*

6. Miss Kyrk has observed that "by the marginal theorist's analysis consumption is a process practically timeless or spaceless."† As Alfred Marshall expressly points out, he does not "suppose time to be allowed for any alteration in the character of tastes of man himself. . . . For in such cases our observations range over some *period of time* (italics mine); and the man is not the same at the beginning as at the end of it."‡

On the other hand, W. Stanley Jevons illustrates the problem of the "distribution of a commodity in time" by the case of a vessel at sea "which is insufficiently victualled for the probable length of the voyage to the nearest port."§ And Gunnar Myrdal, in mentioning that the degree of satiety does not concern only a momentary calculus of happiness, declares that the difficulties are not of a fundamental character, but may be solved by the aid of higher mathematical analysis.||

But the problem is, after all, in my opinion, not so simple. It seems

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* A. B. Wolfe, *On the Content of Welfare*, in *American Economic Review*, vol. 21, p. 210. Cf. Hazel Kyrk, *A Theory of Consumption*, p. 226: "Expenditure and leisure are incorporated into standards of living as ends in themselves, as symbols of caste, rather than as means or opportunities."

† Hazel Kyrk, *A Theory of Consumption*, p. 18.

‡ A. Marshall, *Principles of Economics*, 1920, p. 94.

§ W. St. Jevons, *Theory of Political Economy*, pp. 71 et seq.

|| G. Myrdal, *Vetenskap och politik i nationalekonomien*, p. 134 (German ed. 1932).

evident that our valuations are "largely future in their nature"* or "anticipations."† Practically there always elapses time between the moment of buying or producing and that of consumption or enjoyment. Now, as far as I can see, the concept of want does not include the time-factor. Wants may be recurrent or concern future satisfactions, but can still only be referred to actual feelings and impulses. If time is to be considered, we must suppose a planned programme which may be individual but in practice must become a customary standard. Vice versa, a standard is no standard at all unless it is extended over a certain period. A man who accidentally has earned, say, ten thousand pounds, and during a few weeks lives up to this sum, has not reached the standard of a millionaire even if he has imitated the millionaire's way of living. The character of durability indicative of the concept of a standard becomes clear also when considering that customs and habits—the main characteristics of a standard—could not possibly have become what they are, if they had not been developed during a certain period of time.

The time period which is to be taken into account when standards are formed is arbitrary. The first necessity is to get a job of some kind, the second to secure the paying of the expenses between pay-days. Further, money must be saved for greater payments during the budget year (rents, taxes, etc.).

But the conception of a standard must not be limited to the period of a year; it may contain periods of the life of an individual or of generations. E. T. Devine characterizes the standard in the following way: "It is necessary to follow their (the families') fortunes through an entire generation, or, what is equivalent, to consider the position of the children, the middle-aged, and those of advanced years in the household economy. We must find out what happens in sickness, in hard times, and at times when there is a distinct reversal in the family fortunes. The family is on the right side of support only when, one year after another in hard times as well as in periods of prosperity, they are able to remain independent."‡ How difficult it is to maintain a consistent standard is clearly seen from B. S. Rowntree's picture of the dismal situation of the British workman during different periods of his life.§

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* G. B. Dibblee, *The Laws of Supply and Demand*, p. 43.

† I. Fisher, *The Theory of Interest*, p. 14.

‡ E. T. Devine, *Principles of Relief*, cited by J. H. S. Bossard, *Problems of Social Well-being*, p. 79.

§ B. S. Rowntree, *Poverty*, p. 136.

The unceasing expansion and contraction on account of the age of the members of the family represents, as already mentioned, a serious difficulty. The difficulties of maintaining the standard (or of raising it) increase the lower it is.

Planning for a long time, a standard maintained through generations, is commonly possible only when the capacity for *saving* is present. Saving is, as is well known, defined as the sacrifice at the present time for the sake of the future. Apparently the custom of and variation in saving are nearly related to the opinions of the standard of life and its maintenance over a long period.*

7. When we ask how standards change, the question may be divided into subsections. First, how standards change in the same group; secondly, how the relative height of the different standards changes; thirdly, how individuals move from one class, group, or standard to another.

The change of standards in a group (or in all groups) is commonly due to technical progress (or vice versa), to political and educational circumstances, etc. It may be observed that the real income is dependent not only upon the money income and its purchasing power, but also upon the disposal of the income; here the customary standard of consumption plays a prominent part.

Parallel with the progressive (or regressive) changes, the relative height of the standards may change. Classes or groups may arise or disappear and their importance change relatively as well as their standards. In a short time these changes are hardly noticed, but after a long period they may be considerable. Such structural alterations often appear in combination with progressive (or regressive) changes.

That individuals move from one standard to another may be wholly due to individual activity or genius, but in certain periods the moving force in the direction of certain classes or groups is more noticeable, especially in times of rising standards in the whole society.

These and other dynamic forces working in the standards can here only be alluded to. But the question presents itself, How can standards be measured? What is a high standard, and what a low, or, rather, what is a higher and what a lower standard?

The answer must, in brief, be that the height of standards is arbitrary and dependent upon the judgments or valuations of the society. Different groups have different standards which arrange themselves in a scale, not wholly in accordance with the size of the income earned, but also to some extent according to the social estimation of education, artistic skill, etc. In the long run, however, these mental advantages must be accompanied by corresponding incomes, unless a proletarization of the class is to follow.

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* Cf. T. N. Carver, *The Economy of Human Energy*, p. 36.

If we succeed in sociologically determining the different groups or classes, it is a comparatively easy task to measure, not the absolute height of standards (which seems impossible), but their relative height. Every standard contains items (utilities or services) measurable quantitatively or in money which can be gauged either in absolute terms or according to the proportion in which they are represented in the different standards.

There are apparently also psychological factors which determine the origin and change of standards,* but the standards once given, the economist has only to reckon with numbers and quantities. In that respect the use of standards of life as the starting-point of economic theory has a great advantage over the usual and largely unsuccessful attempts to base that theory upon hypotheses of wants and their satisfaction.† It would be a step further in the direction indicated by Professor Cassel‡ if the psychologizing theories of wants were to be given up by the economists and left to the psychologists. If economic thinking were based instead upon available facts about standards and their composition (as the starting-point), that would not mean a denial of the fact that psychological forces and reactions are ultimately important, if not the most potent, agents in human (economic) life. But since the psychological factors are already reflected in the concept standard of life, there is no special need to take them into account, if we can only get satisfactory information about standards.§ The using of the standard of life as a starting-point in economic theory would also be consistent with the everyday way of reasoning, in which standards play a prominent part.

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* Thus far—concerning the origin and changes of standards—Hazel Kyrk is right in saying that "a standard of living is a psychical fact"; *A Theory of Consumption*, p. 175. Cf. as to the vagueness of the concept of a "psychic" income, G. W. Terborgh, *Psychic Income, Total Utility, and Consumer's Surplus*, in *American Economic Review*, vol. 18, p. 75.

† Unfortunately lack of space does not allow me to criticize the theories about wants and their satisfaction as the starting-point of economic theory. The important arguments in G. Myrdal, *Vetenskap och politik i nationalekonomien*, may, however, be referred to.

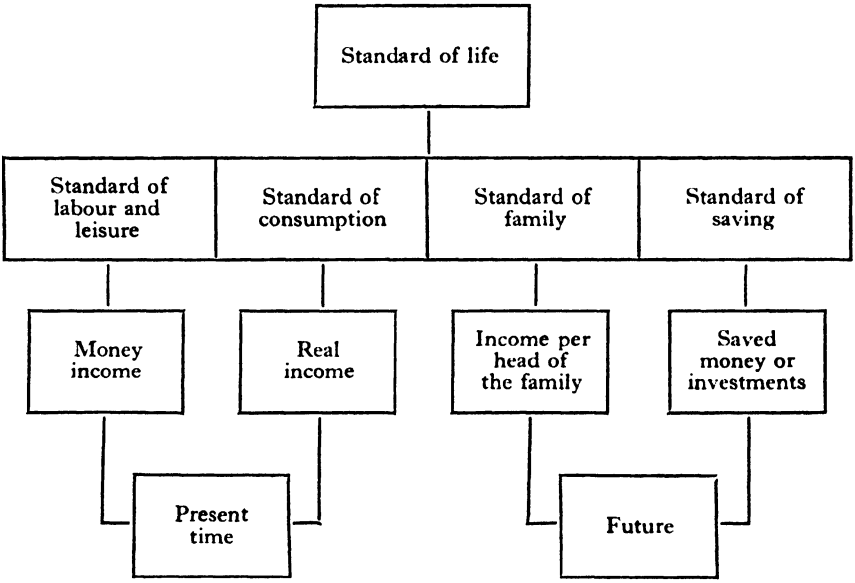
‡ G. Cassel, *Theoretische Sozialökonomie* (1927), p. 69 and passim.

§ Almost the same idea is formulated by G. Cassel, op. cit., p. 7, as follows: "Ganz besonders hat sie (die Wirtschaftswissenschaft) die Bedürfnisse mit ihren verschiedenen Intensitäten, so wie sie im wirklichen Leben hervortreten, *einfach als gegeben zu betrachten*" (Italics mine). In my opinion it is simpler and from all points of view more correct to let the "given wants" be represented by standards.

SUMMARY

1. The standard of life represents a customary way of living, dependent upon the social influence of the class or group.

2. Standards of life can be illustrated and defined only by examining the actual standards.



3. The size of the family is rather part of the standard than the cause of its height.

4. Standards of life cannot be taken as minimum standards or as standards of efficiency, because the ends of economic action are relative and interdependent with the resources.

5. The proportions between labour and leisure are usually given in the standards, for which reason leisure becomes a part of the standard.

6. Standards of life must extend themselves over periods of life or generations; otherwise they are not standards at all.

7. Standards may change absolutely and relatively, but once given

they can be measured relatively to each other according to their composition. The use of standards of life as a starting-point of economic thinking would be a great advantage over the usual concepts of wants and their satisfaction.

Used for the purpose mentioned above the concept standard of life must be extended and not taken in the usual sense as merely a standard of consumption. I sum up with an attempt to illustrate the widened concept standard of life by the diagram on page 518, which, I think, is clearer than a complex definition.

Lastly, I may add that this paper is to be looked upon as an introductory communication, and that some of its defects may be referred to the necessity for condensation. As has already been pointed out, I hope in the future to be able to explain these ideas more in detail in another place.

I LEGAMI INTERNAZIONALI NEI PREZZI TRA PAESI CON O SENZA TIPO AUREO

VINCENT PORRI, *R. Istituto Superiore di Scienze Economiche e Commerciali, Torino*

1. La difficoltà constatate nel funzionamento del tipo aureo hanno ormai indotto quasi tutti gli stati del mondo ad abbandonarlo, sia pure attraverso a formule eufemistiche di "sospensione" o di "embargo" temporaneo sull'oro. I pochissimi paesi rimasti fedeli al dogma della convertibilità,* l'hanno circondata pur essi di tali restrizioni da lasciar pensare che sia ormai aperta la via ad un sistema monetario privo di base metallica, in cui l'oro avrebbe il solo compito di facilitare il saldo degli spareggi temporanei nella bilancia dei pagamenti internazionali.

Infatti, per un ritorno al metodo alternativo, il tipo aureo, con garanzia di vederlo reggere in modo durevole, occorrerebbero troppe premesse complicate e gravose per confidare di riunirle presto. (*a*) Rinuncia da parte dei vari paesi a tenere in patria, in riserva, dell'oro "libero," al di sopra cioè della quota che la legge o la consuetuine fissano come limite. E l'eccesso potrebbe venir concentrato in una località unica, per esempio presso la "Banca dei regolamenti internazionali," allo scopo di servire quale comune massa di manovra.† (*b*) Introduzione del controllo rigoroso sui biglietti, per adeguarli automaticamente alle modifiche nello stock aureo, sì da mantener fermo il rapporto del 33 oppure del 40 oppure del 50 % tra metallo e carta fiduciaria, del nono tra questa e le aperture di credito date dalle banche ordinarie, con perfetta neutralità da parte di chi svolge la politica monetaria.* (*c*) Garanzia che in nessun paese si emaneranno leggi per vietare sia l'ingresso come l'èsodo di oro o di capitali, oppure si introdurranno dazi e norme sanitarie, e controlli alle divise, nuovi oppure inaspriti in confronto al passato, ad intralcio del passaggio dei beni.

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* Dal 19 aprile 1933 non vi restano che Italia, Belgio, Francia, Olanda con le sue colonie indiane, Polonia, Danzica, Albania, Guatemala, Filippine. In tutti gli altri stati si è ricorso almeno al controllo del cambio: le quotazioni restarono inoltre al disotto della parità in alcuni paesi, come in Italia dal sett. 1931 al giugno 1933 in lieve misura, dall' 1 al 3 %. (*Bulletin mensuel de statistique*, Genève, aprile 1933, p. 179, quadro XIV, a; *Tableau synoptique de dates importantes.*)

† Col conservare oro al di là del fabbisogno, se ne toglie al resto del mondo, e si provoca una relativa scarsità in alcuni paesi, marginali a tutti gli altri: appunto questi, ha dimostrato J. Kitkin (*The World's Gold Reserves and Commodity Prices*, *The Economist*, London, supplement 21 gen. 1933) trascinano il resto del mondo al loro livello di prezzi. Ottimo esame delle difficoltà implicite con il tipo aureo danno il Viner ed il Williams in: *Gold and Monetary Stabilization* (Chicago, 1932).

Attendere tutte queste rinunce contemporanee da parecchie decine di stati, in cui predomina la gente pervasa da stimoli e sensibilità nazionalistici, è utopia. Non si riuscì nemmeno a mantenere per più di sette od otto anni gli accordi stipulati a Genova nel 1921; contro il tipo del cambio aureo, dal 1928 si moltiplicano le accuse, per la solidarietà che impone. I paesi che lo ripudiano sono più numerosi degli altri rimastigli fedeli: dal massimo di riserva tenuta sotto forma di divise estere in sostituzione dell'oro toccato con 15,2 miliardi di marchi per i principali stati del mondo tra il 1926 e la fine del 1930, si discese fino a dimezzare le cifre nei due ultimi anni, anzi ancor più giù con 7,35 nel dicembre dello scorto anno.† Alle proposte messe avanti dal Keynes per un accordo di vasta portata, con emissioni di titoli internazionali da distribuire in quote tra le varie banche centrali,‡ l'eco benevola è ben scarsa, mentre si ricercano i vantaggi locali, da ottenersi con una condotta monetaria propria, divergente da quella collettiva concordata. Come mai allora nelle riunioni di Ginevra e Basilea, persino a Washington a pochi giorni di distanza dall'abbandono del tipo aureo, si rinnovano le promesse di rapido ritorno, le genuflessioni come ad un sacro assioma, ma senza riaffermare i vincoli impliciti al sistema? Cerchiamo di esaminarne quelli accennati al punto (*c*).

2. Che il sistema basato sull'oro esiga anche regime di liberismo economico, di illimitato passaggio da uno stato all'altro delle persone capitali ed imprese, appena tra i sistemi nazionali dei prezzi-legati tra di loro, e sostanzialmente omogenei-sorgano delle modifiche, era implicito nel corollario di Ricardo al teorema di David Hume.§ Ricordiamolo: ai cambiamenti in alcuni dei prezzi in un paese non seguono solo delle alterazioni nei vari consumi (complementari tra di

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* Evitando che l'oro si tesaurizzi, non si è risolto ancora il problema: in Francia pare lo facciano anche con i biglietti, in tal misura che qualcuno dice persino si arrivi a trenta miliardi di franchi. Dunque il problema non sarebbe risolto nemmeno così, chè i biglietti tolti al giro non influiscono più sul livello dei prezzi.

† *Gold- und Devisenbestände der Welt im Jahre* 1932 (*Wirtschaft und Statistik*, Berlin, 1 marzo 1933, pp. 130–33).

‡ John Maynard Keynes, *The Means to Prosperity* (London, 1933).

§ L'attribuzione è stata riaffermata da J. W. Angell, *The Theory of International Prices* (Cambridge, Mass., 1926, p. 24 e seg.).

loro all'interno del bilancio delle varie famiglie),* ma anche nei rapporti di baratto-indicati in unità fisiche-tra gli stati.† Ne seguono esportazioni ingrandite, ed importazioni ridotte, dai territori a prezzi ribassati; il rovescio succede dagli altri, dove si nota un rincaro. L'equilibrio tra i debiti e crediti complessivi di un dato paese con il resto del mondo ne resta momentaneamente rotto: ma ritorna a formarsi attraverso il passaggio di oro o cambiali dallo stato debitore ai creditori, con modifiche-inverse a quelle di prima nei rispettivi sistemi dei prezzi. Ed allorchè questi siano di nuovo omogenei, dato il cambio, e vi sia pareggio tra debiti e crediti, cioè senza stimoli a sconvolgere ancora i passaggi abituali di beni e servizi nelle loro quantità consuete, l'equilibrio diviene stabile.

Se invece la politica economica interviene con i dazi doganali, con i contingenti fissi, con i divieti per le merci giudicate di lusso o non indispensabili, ed i metodi di controllo sono accolti in molti stati, le strutture nazionali dei prezzi ne restano come deformate in alcune loro parti, senza possibilità di correttivo. Perdura così un'incertezza che è fomite di crisi, oppure l'esacerba e la mantiene: lo si è constatato in questi ultimi anni.‡ Il sorgere di nuovi stati con tariffe protettive assai alte, il succedersi di quelle degli Stati Uniti via via elevate fino al quasi proibizionismo dell'ultima nel 1930, i rialzi daziari di fronte ad un temuto "dumping" di valuta dalle zone a moneta in corso di svalutazione dall'autunno del 1931, hanno costretto gli esportatori a cedere sempre più nel prezzo delle loro merci pur di continuare ad esportar qualcosa. Hanno dovuto svilirle ben peggio delle merci prodotte e consumate all'interno del territorio di origine, persino di quelle importate. Ciò implica un sacrificio crescente, dato che molti dei costi subìti dalle imprese hanno quotazioni quasi ferme, per i salari ed i tributi quasi immobili nelle loro cifre, e più duri perciò col proseguire del periodo di caduta dei prezzi dal 1921 in poi.

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* Il teorema dell'equilibrio del consumatore venne esposto dal Walras con l'uguaglianza delle utilità marginali: la scuola viennese più recente, con il von Wieser ed Hans Mayer arriva ad una formula poco diversa, ma in cui si tiene conto della non divisibilità infinitesima dei beni: gli scarti tra le utilità marginali dei vari beni acquistati col reddito debbono essere un minimo. Un riassunto della teoria, partendo dal reddito come fa Gustav Cassel, *Theoretische Sozialökonomie* (Tübingen, 1927, 4° ed., pp. 51–52) è nei miei *Principii di scienza economica, I* (Torino, 1932, pp. 236–38).

† F. W. Taussig, *International Trade* (New York, 1927, p. 8) ha dato alla teoria espressione rigorosa.

‡ Non si accoglie qui la teoria che le crisi siano provocate dai disordini commerciali, in quanto bloccano il flusso dei beni, e provocano così disoccupazione e discesa dei prezzi. La crisi nasce da fenomeni monetari, e viene aggravata dallo sconvolgimento provocato nei prezzi delle varie categorie di merci e servizi con le restrizioni daziarie, i controlli sulle divise, le interferenze di ogni genere sugli scambi internazionali. Per l'Haberler, *Gold and Monetary Stabilization* (Cit. pp. 48 e segg.) gli impulsi al movimento ondulatorio possono venire sia dal lato della moneta come da quello delle merci; qui con le invenzioni, le migliorie, i raccolti favorevoli, ecc. Ma non tiene conto delle storture e perdite provocate da alcuni interventi degli enti pubblici.

Per l'Italia—ed il fenomeno non è dissimile in parecchi altri paesi—ancora nel 1927, l'anno in cui avvenne la stabilizzazione della lira, prima di fatto e poi giuridica, le modifiche nel livello dei prezzi avevano dimostrato una proporzionalità molto notevole.* Le merci da esportare erano rimaste indietro, rispetto a quelle fabbricate all'interno per uso locale, di appena un dodicesimo; quanto ai manufatti, a paragone delle materie gregge, presentavano un dislivello che arrivava a poco

INDICE BACHI DEI PREZZI ALL'INGROSSO (1913 = 100)

Media annua	Merci esportate (*a*)	Merci prodotte e consumate in Italia (*b*)	Differenza di livello tra (*a*) e (*b*)	Materie gregge (*c*)	Prodotti finiti (*d*)	Differenza di livello tra (*c*) e (*d*)
1927	462,5	505,7	− 8,6	487,0	483,9	+ 0,5
1928	438,5	477,6	− 8,3	448,9	449,7	− 0,1
1929	408,6	447,9	− 8,6	430,3	447,3	− 3,9
1930	319,6	379,4	− 15,8	348,3	437,6	− 20,5
1931	274,0	327,9	− 16,2	281,9	400,6	− 29,7
1932	241,3	307,9	− 21,6	255,9	396,2	− 35,5
1933 (marzo)	215,7	281,6	− 23,5	240,1	391,3	− 38,4
Variazione % nell'intervallo	− 53,3	− 44,4		− 50,6	− 19,1	

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* In Italia l'ordinamento corporativo cerca di facilitare le modifiche contemporanee nei prezzi e nei redditi, salari ad interesse. *Kollektivverträge und Arbeitsgesetzgebung in Italien* (*Schriften des Vereins für Sozialpolitik*, Leipzig, 1932, vol. 179, ii°, pp. 153 e segg.). Il salario medio orario dal 1929 al 1932 è diminuito qui del 13,5 %. In Inghilterra, invece, l'indice rimase quasi fermo a 173–181, dalla fine del 1921 al 1927 (vecchia serie del "London and Cambridge Economic Service") e poi scese di un ventesimo appena, come da 101 a 95,5, nei cinque anni ultimi (nuova serie): nell'intervallo il costo della vita si ridusse invece del 25,6 % nel primo periodo, del 14,8 nel secondo. Quanto alle entrate fiscali effettive, dal 1928–29 al 1931–32 in Italia diminuirono da 20,2 miliardi di lire a 19, cioè del 5,5 %. In Inghilterra eran cresciute da 800 milioni di sterline ad 858 tra il 1924 ed il 1930, per contrarsi poi ad 827, nell'esercizio ultimo, cioè del 3,6 %.

più di un mezzo centesimo. Da allora, però, i prezzi sono precipitati alla metà o lì attorno per ogni tipo di beni, ad eccezione dei prodotti finiti, che ribassarono di un quinto appena. E se il divario d'altezza tra quanto rimane all'interno e ciò che si esporta è cresciuto a poco meno di un quarto, per le materie gregge di fronte ai beni elaborati attraverso al lungo processo produttivo è balzato a circa due quinti.* Si noti che una buona percentuale della corrente di uscita consta a sua volta di merci finite o semigregge:† si vendono dunque oltreconfine a cifre tra le più svilite a paragone dell'intero sistema nazionale dei prezzi, mentre per la natura loro entrerebbero proprio nella categoria a quotazioni più alte. Tanto sacrificio occorre ormai per vincere le barriere doganali, erette in ogni angolo per chiudere la concorrenza straniera; tanto sforzo si richiede per mantenere rapporti con la clientela estera!

INDICI DEI PREZZI ALL'INGROSSO NEGLI STATI UNITI
(1926 = 100)

Anno	Materie gregge (*a*)	Semi lavorati (*b*)	Prodotti finiti (*c*)	Derrate agricole (*d*)	Metalli e loro lavori (*e*)
1929	97,5	93,9	94,5	104,9	100,5
1931, gen.	72,7	73,7	81,7	73,5	89,3
1932, gen.	58,3	63,1	72,1	52,8	81,8
1933, gen.	50,2	56,9	66,7	42,6	78,2
Variazione nell'intervallo, %	− 48,5	− 39,4	− 29,4	− 59,3	− 22,1
Differenze—	tra (*a*) e (*c*)	tra (*b*) e (*a*)	tra (*b*) e (*c*)	tra (*d*) ed (*e*)	
nel 1929 ..	+ 3,0	− 3,9	− 0,07	+ 4,4	
nel 1933, gen.	− 24,7	+ 13,3	− 14,80	− 45,5	

* Gli indici calcolati in Italia in base alle statistiche del commercio internazionale indicano, tra il 1927 ed il 1932, nelle materie gregge importate una diminuzione del 58,9 %, in quelle esportate del 44,4; nei prodotti finiti le cifre rispettive mostrano una discesa del 43,4 e del 54,8. Anche in questa rilevazione i divari sorprendono con la loro grandezza: mentre dal 1925 al 1927 le materie gregge erano diminuite di un settimo più che i prodotti finiti esportati, dopo questi perdettero essi circa un quarto di più che le prime.

† Nella relazione del governatore all' *Adunanza generale degli azionisti della Banca d'Italia*, 30 marzo 1933 (Roma, 1933, p. 13, n. 2) si ricorda che i prodotti finiti o semilavorati rappresentano il 59 % del valore totale delle esportazioni italiane.

Il fenomeno lo vedremmo in tutti i paesi che hanno ricorso di più alle difese protettive, se vi si calcolassero gli indici in base alle correnti commerciali ed al grado di elaborazione. Gli Stati Uniti hanno solo l'ultimo tipo di raggruppamento, oltre alle categorie per rami d'industria: si vede che il rinvilìo vi è ben lontano dall'esser omogeneo, chè si passa da una caduta di nemmeno un terzo per i beni trasformati dal processo produttivo completo, a quella di circa la metà per le materie gregge. Ancora più stridente riesce il confronto tra le derrate agricole ed i prodotti metallurgici: quì la sorte è ben diversa, con un crollo di poco meno che tre quinti per le prime, tipiche merci da esportare, di qualcosa di più di un quinto per i secondi, limitati invece al mercato interno. Implicitamente si vede il risultato della tariffa protettiva: con le derrate agricole non viene ad incidere i consumatori interni, data la necessità di vender all'estero una parte dei raccolti; con i prodotti metallurgici invece vi arriva, perchè non satura il fabbisogno nazionale. Quanto al distacco delle singole categorie tra di loro, era minimo (3-4 %) all'inizio, ma ormai è saltato ad un quarto, ad oltre due quinti persino se badiamo ai rami d'industria dove il contrasto è peggiore. Questi, anzi, potrebbero servire quali indici di beni esportati a paragone di quelli prodotti in patria esolo quì consumati.

INDICI DEI PREZZI ALL'INGROSSO IN GERMANIA
(1913 = 100)

Anno	Derrate agricole (*a*)	Materie gregge e semigregge (*b*)	Prodotti finiti di consumo (*c*)
1927	137,8	131,9	160,2
1928	134,3	134,1	174,9
1929	130,2	131,9	171,6
1930	113,1	120,1	159,3
1931	103,8	102,6	140,1
1932	91,3	88,7	111,1
1933 (apr.)	77,1	86,9	109,2
Diminuzione % nell'intervallo	− 43,8	− 34,0	− 31,8
	tra (*a*) e (*c*)	tra (*b*) e (*a*)	tra (*c*) e (*b*)
Differenza % in 1929 ..	− 14,1	+ 1,0	+ 30,1
Differenza % in 1933 ..	− 29,4	+ 12,4	+ 25,9

In Germania, dove il protezionismo venne distribuito sia all'agricoltura come alle industrie, e con i certificati di esportazione si arriva a mantenerne l'efficacia anche dove la produzione oltrepassa di poco il consumo interno, le disparità appaiono meno stridenti, sebbene non manchino: l'ampiezza di divergenza tra le derrate ed i manufatti pel consumo locale è raddoppiata nel periodo, per una discesa lenta in questi, dopo una salita molto più energica ed ampia nel passato.

3. La causa di storture di questo genere, di siffatte deformazioni tenaci, che si ampliano invece di addolcirsi col passare dei mesi, non è lecito attribuirla al tipo aureo. Si debbono però, almeno in parte, alle difese che esso provoca, ai tentativi svolti per eludere i fenomeni che deriverebbero dai passaggi di oro, data la volontà di troncare le facilitazioni che essi provocherebbero nei rapporti di baratto. Non si lascia che, ove questi si alterino per un motivo qualsiasi in confronto al periodo anteriore, acquistino in maniera spontanea tale grandezza da riportare il flusso degli scambi di beni e servizi da un paese all'altro ad omogeneità di mole. Ciò accadrebbe ben presto attraverso al meccanismo monetario indicato dal teorema di Hume e dal corollario ricardiano; ma prima ancora che possan iniziarsi, si troncano fin dalla nascita le occasioni di nuovi commerci. Sia pure col rischio di inaridirli: dal 1929 al 1932 il valore delle esportazioni mondiali è diminuito di ben tre quinti.*

Invece di riconoscere che le norme restrittive passate non avevano chiusa del tutto la via a qualche importazione di merce, e di rallegrarsene per le esportazioni compensatrici che ne sarebbero derivate, il feticismo aureo, con il terrore di veder uscire qualche poco di oro induce a persistere nei dazi e divieti, a cercarne altri. Ciascun gruppo di imprenditori li vorrebbe alti per quanto elabora nei propri opifici, minimi o nulli per ciò che deve impiegare: ma siccome non si trova una merce elaborata in un ramo d'industria che non serva in altri da materia prima, le contese reciproche sconvolgono ancor peggio l'equilibrio nei prezzi delle varie categorie di beni e servizi, introducono nuove disparità non facili da cancellarsi.

Nella struttura nazionale complessiva all'ordine stabile ed armonico viene a sostituirsi cosi una sucessione di equilibri temporanei e parziali, puntellati dalla politica economica locale, con dislivelli numerosi. Può riuscire durevole—cioè tale da non indurre nessun produttore a trasferirsi da un ramo all'altro—un assetto in cui nel sistema dei prezzi restano degli scoscendimenti enormi, tra una categoria di merci e le altre? Non si vogliono quì paragonare le cifre assolute, ma le oscillazioni relative, le quali non rivelano l'omogeneità che ce ne attenderemmo: s'intuisce il torpore dei correttivi, o meglio l'influsso dell'opera statale che li annulla appena incomincerebbero a farsi sentire.

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* Da un valore pari a 2,716 milioni di dollari nel 1929, le importazioni in un mezzo centinaio di stati tra i più importanti nel mondo sono diminuite nello scorso anno a 1,061,3, cioè del 60,8 % (*Bulletin mensuel de statistique*, Genève, marzo 1933, p. 104). Nei primi mesi del 1933 si ebbero anche contratzioni di due terzi (lu glio 1933, p. 246).

Parecchi dazi doganali vennero introdotti, nei paesi rimasti fermi alla base aurea, in difesa delle riserve metalliche. Vi era il dubbio che gli stati dove il cambio peggiorava, dopo l'abbandono della convertibilità, ottenessero per le loro esportazioni un tal vantaggio duraturo, di fronte agli altri, da riuscirea vendervi gran mole di merci e cosi riceverne parecchio oro. Perciò le porte si vollero sbarrar ancora di più davanti al commercio estero. Politica erronea: dopo qualche mese, dove si era ricorso all' "embargo" sul metallo, od al temporaneo corso forzoso della moneta cartacea, i prezzi dovevano rincarare nella stessa misura del cambio, ed il premio scompariva. A meno che prima non vi fossero adeguati, per i salari e le imposte mantenuti alti.* Anzi, proprio le barriere portavano gli esportatori a svilire ancor peggio le merci pur di superare l'ostacolo daziario; contribuivano così ad accentuar le deformazioni già notate, e—di rimbalzo—provocavano nuovi dazi, rivolti a chiudere le ultime fessure.

Almeno nei paesi dove si strepita per una politica di credito e di inflazionismo che riporti i prezzi al livello del 1929—basterebbe invece cercare di fermarne la caduta—si dovrebbe preferire l'abbandono del tipo aureo. Parecchi risultati opportuni ne potrebbero derivare. (*a*) Verrebbe meno un motivo per l'impiego del protezionismo, quello a difesa delle riserve auree. (*b*) L'oro accumulato servirebbe per intero a saldo degli spareggi temporanei nella bilancia dei pagamenti internazionali. (*c*) Le oscillazioni nei prezzi per le ondate lunghe scomparirebbero, e così le crisi più tenaci: i cicli brevi trovano cura automatica nel riequilibrio rapido tra costi e ricavi. (*d*) Con la ricerca di una relativa stabilità nei prezzi all'interno di ogni stato, rimarrebbero abbastanza fermi pure i cambi tra le rispettive monete. (*e*) I legami tra i sistemi nazionali dei prezzi si formerebbero lo stesso, anzi con minor disomogeneità nelle varie categorie di beni e servizi, con rapido e stabile equilibrio tra i debiti ed i crediti dei rispettivi paesi.

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* Come si è visto a p. 524, questo è il caso dell'Inghilterra. La rivalutazione della sterlina dal corso minimo di 3,215 sul dollaro nel 1920, lo portava alla parità nel 1925, con un rialzo del 51 %: l'indice del costo della vita nell'intervallo non diminuiva che del 29. L'abbandono della convertibilità nel 1931 ristabiliva quindi l'equilibrio che prima non si era ottenuto: per questo i prezzi rimasero poi quasi fermi, con una lieve discesa da 145 a 139, cioè del 4 %, nell'indice del costo della vita dal settembre 1931 fino al febbraio 1933.

4. Il mondo economico ha bisogno di una situazione stabile, non di sussulti periodici: deliberata una tariffa, protettiva o non, e discussi i trattati di commercio, giova all'universale un periodo di qualche decennio con la garanzia che non verranno più introdotte modifiche. Le imprese vi potranno contar sopra per una serie di annate, al sicuro dalle maggiorazioni improvvise di prezzo di qualche bene strumentale, col pretesto di un "dumping" di valuta che potrebbe svolgersi. Dal tempo di Adamo Smith, si è richiesto sempre la certezza nel regime dei tributi; e da quelli dell'Alighieri si è lamentato che "a mezzo novembre non giugne, quel che tu d'ottobre fili." Siccome le alterazioni improvvise sono proprio dettate dal timore di veder contrarsi l'oro in riserva—ed al quale si addossano due funzioni: (*a*) dar base alla moneta ed al credito; (*b*) saldare i dislivelli temporanei nella bilancia dei pagamenti internazionali—quando gli si toglie la prima funzione ecco il metallo divenir meno scarso per la seconda, sì da non dover correre in fretta ai ripari daziari appena ne esca qualche tonnellata. Soprattutto dove la legge fissa un'alta percentuale di oro ai biglietti, la quota corrispondente divien prigioniera. Solo il di più serve alle manovre: ma è naturale allora che sia piccola la parte del metallo libera, dato che il grosso diviene immobile. E vi si guarda con occhi sbarrati ad ogni contrazione,* mentre si deve pur riflettere che per i rapporti internazionali dei pagamenti ormai non resta altro fondo cui ricorrere, appena i crediti liquidi restino al di sotto dei debiti scaduti. In mano al pubblico non vi sono più i pezzi aurei coniati, e le banche ordinarie hanno perduto i depositi prima loro affidati dai corrispondenti esteri: il panico finanziario del 1931, e quello del 1933, li indussero a richiamarli in patria.†

La rinuncia alla base aurea metterebbe a disposizione dei trasferimenti, appena lo esigano gli spareggi temporanei, le intere masse auree senza bloccarne parte alcuna. Per dimostrarle ancor meglio sciolte dai vincoli colla moneta, servirebbe indicarle in parità fisiche, cioè in peso e titolo. Così riuscirebbero adeguate ovunque, anzi persino eccessive, dato che alla lunga crediti e debiti debbono bilanciarsi, e l'oro che esce in un anno dove ritornare dopo breve intervallo. Infatti, le imprese di uno stato fanno credito a quelle degli altri nell'aspettativa del rimborso: se qualche volta si lasciano ingannare da promesse non eseguibili, cercano di cadere il meno possibile nella pania, ed in definitiva a ciascun paese arrivano tante merci e servizi quanti ne può pagare con altre merci e servizi. Tuttavia di oro se ne conserverebbe sempre molto, per l'impressione mercantilistica che possa giovare in caso di guerra a procurar crediti; non vi è il pericolo quindi di vederlo svilire per tale riforma. Del resto, non aveva perduto una metà del suo potere d'acquisto durante la guerra, un terzo circa dal 1921 al 1928, per il corso forzoso di parecchie monete e la rinuncia ad usare i pezzi coniati negli scambi quotidiani? Poi nel quinquennio ultimo il ritorno alla convertibilità in molti stati, e l'abbandono del tipo del cambio aureo in altri dopo un'esperienza troppo breve per riuscir conclusiva, gli hanno ridato qualcosa di più di quanto gli era stato tolto poco prima.*

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* Il panico in Germania nel 1931 iniziò il suo corso proprio dalla contrazione della copertura dei biglietti dal 54,4 % nel maggio a solo il 36,5 nel giugno: si dovette modificare la legge, ma sarebbe stato ben piiù vantaggioso non porre un rapporto legale fisso.

† Ne è indicata l'evoluzione in *Bilance dei pagamenti internazionali e riserve auree* (*Giornale degli economisti*, Roma, aprile, 1932, p. 241).

5. Troncato il legame tra la moneta e l'oro, non si deve più subirne il variar di valore a seconda che il suo ritmo di scavo si presenti in rapporto or più or meno vicino a quello del fabbisogno di metallo nei vari usi, compreso quello di riserva per i biglietti. Di qui sono derivate le epoche di rincaro continuo nell'ondata lunga; le provocano le miniere di nuova scoperta, con il metallo abbondante che si sparpaglia tra le varie piazze del globo in un periodo che durava qualche decennio nei secoli scorsi, un lustro solo ormai. E nell'intervallo tra la data in cui un settore minerario nuovo esaurisce il suo ritmo di progresso, e quella in cui viene trovata e messa in esercizio un'altra zona ricca, ecco due o tre decenni in cui l'offerta aurifera rimane statica ed i prezzi dei beni e servizi appaiono in discesa. Non si potrà mai studiare la precisa correlazione statistica tra il flusso delle monete di ogni tipo adoperate nei quattro secoli ultimi, ed il loro fabbisogno, cioè l'entità dei redditi e dei valori capitali da spendere o trasferire. Non arriveremo mai a misurarli: sappiamo solo le medie del quantitativo di metallo scavato ed un grossolano indice delle variazioni nei prezzi mondiali. Non manca tuttavia tra le due serie un legame suggestivo. Dove non appare, deve esser avvenuto un incremento nel traffico o nella produzione economica ancora più rapido del ritmo di maggior scavo dell'oro (come nell'ultimo quarto del secolo passato), oppure la contemporanea ricerca del metallo prezioso per metterlo a riserva in

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* *Le funzioni monetarie dell'oro* (*Giornale degli economisti*, maggio 1933).

una ventina banche centrali avvenne per una mole troppo al di sopra dello scavo, sebbene ingrossato di fatto come dal 1921 in poi, per lasciarlo adeguato.[*]

Se venisse tolta la domanda di metallo aureo per farne base della moneta tipo, la circolazione dei biglietti verrebbe regolata al fine di mantener relativamente stabile il livello dei prezzi. Le forze che lo farebbero discendere, come il progresso tecnico riduttore dei costi, ne troverebbero altre capaci di spingerlo in sù, come salari e tributi in quasi continuo rialzo, ed in definitiva la pressione rispettiva si pareggerebbe. Solo il ciclo economico ad ondata corta rimarrebbe a dare le sue scosse, non troppo gravi data la loro durata tenue, e non prive del resto di conseguenze benefiche, con il riesame delle varie imprese, la scomparsa delle male attrezzate e miglior fortuna per le migliori.[†]

Periodo	Media annua di produzione di oro, in Kg.	Periodo	Media tra gli indici dei prezzi Hanauer, Davenel e Jevons negli anni estremi	Variazione percentuale nell'indice dei prezzi
1493–1520	5,800	1500–1550	32–60	+ 86,5
1521–1620	9,438*	1551–1650	60–100	+ 66,6
1621–1700	9,275	1651–1725	100–72	— 28,0
1701–1780	19,270	1726–1810	72–139	+ 93,1
1781–1840	16,550	1811–1850	139–70	— 49,6
1841–1870	115,800	1851–1873	70–86	+ 22,8
1871–1890	165,700	1874–1896	86–51	— 40,7
1891–1919	508,900	1897–1920	51–188	+ 269,0
1920–1928	539,900	1921–1932	188–125	— 33,5
1929–1932	635,000	—	—	—

* Compresi 81,000 Kg. importati dalla Spagna nel 1531–1600, togliendoli sui tesori già accumulati in passato dagli Incas.

Si raggiungerebbe pure la stabilità del cambio. Invece di ottenerla con il rapporto rigido della moneta all'oro, a scapito dei prezzi sottoposti a variazioni notevoli, persino di una metà, la si cercherebbe attraverso al livello fermo dei prezzi.* Infatti, se il potere d'acquisto di ciascuna moneta non oscilla, non deve subire alti e bassi nemmeno il loro rapporto. Con un vantaggio innegabile: chi parla di sabbie mobili appena le monete siano sciolte dall'oro, dati gli scarti ragguardevoli che possono presentarsi nel cambio, dimentica le sabbie mobili—certo non meno pericolose—con l'alterno sussulto dei prezzi. La sterlina dal settembre al dicembre del 1931 perdeva il 31 %, ed il dollaro dall' aprile 1933 in poche settimane svili di altrettanto: vice-versa i numeri indici delle quotazioni all'ingrosso impiegarono gli ultimi tre anni per svolgere una traiettoria all'ingiù come le monete. Occorsero inoltre parecchi decenni per vederli raddoppiare o triplicare; di scarti di tale ampiezza, o peggiore, il cambio ne registrò invece persino in pochi mesi, ma questo accadde solo in qualche stato dove il bilancio pubblico era in grave spareggio. Ciò non toglie che le difficoltà nei pronostici e nei calcoli si presenti pure con i prezzi.

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[*] L'Haberler vede nel progresso economico una causa di contrazione continua nei costi e quindi nei prezzi (op. cit., p. 54). Ma non basta a bilanciare tale spinta al ribasso la continua tendenza al rincaro in alcuni fattori produttivi? Per il salario della fine del settecento in poi lo ha dimostrato F. Simiand, *Le salaire* (Paris, 1932, vol. i); per le rendite ed i tributi, è fenomeno noto.

[†] Secondo F. Simiand, *Les fluctations économiques à longue periode et la crise mondiale* (Paris, 1932), appena il ritmo di accrescimento dei medii monetari si accelera, ecco il rincaro: quando si attenua, avviene la caduta dei prezzi. Ma anche questa ultima sarebbe benefica, per la rude selezione delle imprese.

6. Col tipo aureo i prezzi nazionali, che formano un sistema in ciascun paese per i legami tra quotazioni all'ingrosso ed al dettaglio, per i fattori produttivi ed i beni finiti, riescono pure allacciati tra stato e stato. Ogni modifica nella quotazione di alcune merci si trasmette a tutte le altre, e da un paese ai rimanenti, attraverso al via vai continuo di oro, date le sue ripercussioni sulla moneta e sul credito. Ma scomparso il meccanismo aureo, quale forza entrerà in opera, al fine di provocare—dopo ogni alterazione—i correttivi opportuni per ricondurre all'equilibrio? Questo non ritorna, infatti, finchè non vengano tolti i divari fra i prezzi, dato il cambio, e finchè i rapporti di debito e credito per beni e servizi si pareggino tra i rispettivi paesi. Non che tutti i prezzi debbano diventare uguali: in tal caso non si realizzerebbe più alcun passaggio da un territorio agli altri, ha dimostrato il Cassel. Basta che sia omogeneo il livello generale, con alcune cifre più alte in un mercato, meno alte in parecchi altri.†

Si imagini che l'equilibrio si rompa per un rincaro generale dei prezzi in un paese. Non deve trattarsi di un cambiamento in una sola od in poche merci o servizi: in tal caso, poco dopo, la domanda o l'offerta, o tutte due, muterebbero, con qualche ripercussione sui bilanci personali, sì da redistribuire tutti i consumi, in base aitentativi eseguiti per ridurre ad un minimo gli scarti tra le utilità marginali di ogni spesa. Il fenomeno che qui si considera è diverso: deve esser avvenuta una alterazione in tanti prezzi da sconvolgere, rispetto alle scelte anteriori, i rapporti di baratto negli scambi internazionali, e perciò le correnti con l'estero. Siccome la politica monetaria tende alla stabilità,* chi la guida provvede subito allora a mutare il saggio di interesse allo scopo di restringere moneta e credito dopo un rincaro, di accrescerla dopo un rinvilìo. Ad affrettare verso tali provvedimenti, concorrerà la pressione del cambio: al primo accenno ad una oscillazione dei prezzi, ancor prima che il rincaro sia concreto, le monete estere verranno quotate di più, con un freno ad importare, con un premio per chi esporta. Ci si riavvicina così all'equilibrio sia tra le strutture dei prezzi, sia tra i debiti ed i crediti.

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* E' una conseguenza della teoria del Cassel che lega le variazioni del cambio alle modifiche nella parità dei poteri d'acquisto delle monete considerate: *Money and Foreign Exchange after* 1914 (London, 1922, pp. 140–44).

† Gustav Cassel, *The International Movement of Capital*, Foreign Investments (Chicago, 1928, p. 7 e seg).

Entrano in giuoco dei correttivi, analoghi a quelli consueti con il tipo aureo, e valgono a ricostituire le omogeneità di livello. (*a*) L'oro può passare come merce da impiegarsi nelle industrie ed arti (ma allora si moverá in piccole partite), oppure come lingotti facili da conservare e di larga accettazione in quanto mezzo universale di saldo degli spareggi nella bilancia dei pagamenti. (*b*) I biglietti serviranno di rado, data l'alea speculativa troppo alta che impongono, come ricorda ogni compratore di corone austriache, di rubli russi, di marchi germanici nel 1921–22. (*c*) Con molta semplicità interverrebbe l'impiego delle divise,† se la banca centrale ne terrà per cederle al mercato, insieme con, oppure a surrogare i lingotti aurei. A qualsiasi di questi mezzi si ricorra, i risultati riescono uguali: il debitore che vuol procurarsi divisa od oro, deve versare assegni o banconote all'istituto centrale, oppure spedire biglietti. In ogni caso di moneta all'interno ne rimane meno, e ciò preme sul sistema dei prezzi che si contraggono:

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* Del significato non preciso di questo concetto parla l'Haberler (op. cit., p. 53), che ha richiamato l'attenzione sull'influenza svolta dal saggio d'interesse: col modificarlo, allo scopo d'influire sul livello generale dei prezzi, si altera il periodo di tempo richiesto dal processo produttivo con giro. Quando il saggio vien tenuto a livello tenue, il giro si allunga; ove rincari, si accorcia e perciò il risparmio più o meno abbondante agisce con forza notevole.

† Il tipo del cambio aureo richiede una riserva in divise convertibili in oro, e lascia l'alea di un deprezzamento se di qualcuna delle monete scelte venga sospesa la convertibilità. Ove il tipo aureo venga abbandonato, l'alea da correre col mantenimento di un certo stock di divise estere cresce. Ma a compensare le perdite eventuali verrebbero gli interessi guadagnati con i crediti così aperti agli istituti d'emissione stranieri, e la minore spesa di custodia di fronte all'oro. Il Viner osserva (op. cit., p. 14) che questo non forma mai una partita redditizia per la banca. Conviene ricordare inoltre che l'oro, oltre a non fruttare nulla ed a costare per il grande spazio corazzato che esige, in certi periodi si apprezza, ma in altri deprezza non poco.

nel paese straniero, al contrario, l'oro o la divisa vien accreditata, ed ingrandisce il giro dei medi circolanti, con un rincaro dei beni e servizi locali.

Vi è da badare che si modifica subito anche il cambio; peggiorerà a danno del primo paese e migliorerà per gli altri dove il livello resta fermo. Siccome ciò attenua subito il divario nei rapporti fisci di baratto, impedisce che si creino degli spareggi molto notevoli nelle correnti commerciali. Viceversa, appena si inizia la deflazione, di rimbalzo all'uscita di oro o divise o biglietti il cambio migliora per il primo paese, peggiora per tutti gli altri, con un ostacolo al fluire delle esportazioni destinate a riportare il pareggio. Non si dimentichi tuttavia esser ben difficile che si uguaglino proprio le due forze antitetiche, e quindi si elidano per intero: i caratteri vischiosi di alcuni prezzi e redditi oppongono degli attriti, ed alcune importazioni nuove convengono nel periodo iniziale, qualche esportazione prima non redditizia lo diviene in quello successivo.

Nel caso che l'istituto centrale non voglia assumere la funzione di tenere oro e divise per il saldo della bilancia internazionale dei pagamenti, oppure ne abbia già esaurite le scorte, a coprire il deficit dovranno provvedere le banche ordinarie, col cercare accordi con gli istituti stranieri. (*d*) L'invio all'estero di cambiali finanziarie sposta l'esaurirsi effettivo dell'operazione alla data in cui esse scadranno: ma intanto migliora il cambio per il paese dove vengono create, lo peggiora per quello che le sconta. Siccome nel primo il maggior debito così aperto, per il breve intervallo in cui dura la vita delle cambiali, era stato eccitato da un anteriore rincaro locale dei prezzi, non trova freno in una quantità minore di biglietti. Anzi, l'operazione corrisponde ad importar capitale, e, coll'ingrandire le disponibilità presso il debitore, vi mantiene elevati i prezzi; li attenua al contrario presso chi concede credito, e perciò vi riduce i depositi interni e vi abbassa i prezzi. Ma pure qui il cambio interviene, e sconta i due fenomeni: a quella forza che lo apprezza nel primo paese, si contrappone quest'altra a deprimerlo, e per l'inflazionismo cui corrisponde è probabile che predomini. Allora cancella quasi per intero il divario nei rapporti di baratto: impedisce così che le importazioni si mantengano alte, e che quanto s'esporta oltre confine rimpicciolisca, fino ad annullare lo spareggio. Non lo salda però, a meno che nel sistema dei prezzi vi fossero state delle disparità nei movimenti anteriori, e che nei costi comparati sia rimasto qualche caso di maggiore convenienza ad esportare. Il metodo, ad ogni modo, non fa che rinviare la soluzione: appena le cambiali scadono, si dovrà provvedere a liquidarle, a trasferire realmente il capitale.

Si potrá ricorrere allora ad una delle tre vie sopraindicate, oppure ad una quinta che si presenta come alternativa, qualora le altre siano esaurite:

(*e*) col mettere a disposizione del creditore la somma in moneta legale interna del nostro paese, vien dato a lui, oppure ad un terzo cui egli lo giri, il diritto di comprar qui merci e servizi. Per indurvelo, conviene però procurargli un vantaggio con dei rapporti di baratto più favorevoli di prima. Lo divengono proprio, in forza della minore quantità di moneta che resta così in circolazione. Infatti, con l'accantonare denaro per metterlo a disposizione dei creditori esteri, se ne è sottratto al mercato per un certo periodo, mentre il quantitativo di beni da muovere è cresciuto con le importazioni maggiori. Il cambio non dovrebbe risentirne, in quanto non vi è un'offerta di lire unita a domanda di valute estere: potrebbe muoversi, invece, per le minori dosi di moneta all'interno, od almeno per la velocità di giro diminuita. Ed allora cancellerebbe in parte il vantaggio presentato ai creditori stranieri con i rapporti di baratto più favorevoli di prima: rimarrebbero attivi solo i divari lasciati dalla viscosità di alcuni prezzi e costi.

Insomma, nell'epoca in cui entra in azione il meccanismo che assicura il legame—lo rappresentino verghe auree, oppure divise o biglietti od aperture di credito in moneta interna—provoca un rinvilio dei prezzi. Ma il cambio si muove, e mette nuovi ostacoli al paese in debito: col divenirvi subito più favorevole, stimola di nuovo alcune importazioni, ed impaccia certe vendite oltre confine. Però via via la discesa dei prezzi si distribuisce su qualche elemento di costo, dalle materie gregge in arrivo dall'estero a qualcuna interna, e spuntan fuori nuovi casi di baratto propizi, sì da renderne la misura più ampia di prima.

A paragone del meccanismo aureo, quello libero dalla base metallica, presenta qualche carattere specifico, però i divari dall'altro sono piuttosto parziali e temporanei. Con tutti e due, i prezzi diminuiscono nel paese in debito, crescono in quello dei creditori: il cambio si altera, entro i punti dell'oro quando la moneta è convertibile, con un settore di variabilità ben più ampio dove non lo è. I prezzi oscillano pure in misura omogenea, sia per le merci ed i servizi consueti negli scambi internazionali, sia per le altre, dati i legami posti dal salario all'incirca eguale dappertutto. Forse, anzi, la variazioni nei prezzi riescon meno omogenee tra le varie categorie di beni e servizi proprio nei paesi che hanno il tipo aureo: non per motivi specifici, ma per fenomeni indiretti. Qui, infatti, la difesa delle riserve auree conduce ai dazi protettivi, e provoca successive ritorsioni: per superarle, ed esportare ancora, in ciascun paese si tenta a render alcuni rapporti di baratto più favorevoli ai compratori stranieri, e così il livello dei prezzi di quanto si spedisce oltre confine si mantiene inferiore al resto della produzione solo interna e destinata al consumo locale. Tanto più che il cambio non lascia spiragli, con il suo vincolo entro i punti dell'oro.

ESQUISSE DE L'ÉVOLUTION BUDGETAIRE DE LA CONFÉDÉRATION SUISSE

WILLIAM E. RAPPARD, *Professeur à l'Université de Genève*

LORSQUE, il y a quelques mois, on me fit l'honneur de me demander de collaborer à un ouvrage destiné à célébrer l'enseignement universitaire du Professeur Gustav Cassel, je fus en proie à deux sentiments contraires. La crainte de ne pouvoir, dans le délai imparti et au milieu d'une foule d'occupations absorbantes, préparer une étude qui ne fût pas trop indigne de mon éminent et vénérable collègue suédois me portait à refuser. Mais le désir de m'associer à l'hommage que lui rend par la publication de ce volume le monde savant, me poussait presque malgré moi à accepter. Finalement ce désir l'emporta sur cette crainte, non que la crainte fût atténuée, mais le désir était décidément trop impérieux.

Aux raisons de haute estime intellectuelle qu'éprouvent pour l'illustre maître scandinave tous les économistes de ma génération, s'ajoutait en effet pour moi une considération de vive reconnaissance personnelle. La collaboration que M. Cassel a bien voulu assurer, en 1931, à l'Institut Universitaire de Hautes Études Internationales de Genève, que je dirige avec mon ami Paul Mantoux, et celle qu'il a bien voulu nous promettre à nouveau pour le semestre prochain créent pour nous une bien lourde dette. Cette dette, je sais bien que nous sommes impuissants à nous en acquitter, mais je tenais au moins à la reconnaître publiquement. C'est dans cet esprit de respectueuse et d'affectueuse gratitude à l'égard du maître vénéré que j'ai rédigé cette trop hâtive notice. Qu'il veuille bien en excuser l'insuffisance à la faveur des mobiles qui m'ont interdit de rester étranger à l'hommage si pleinement mérité que rendent à son œuvre et à sa personne, ses élèves, ses amis et ses admirateurs.

Les finances publiques de la Confédération suisse sont celles d'un Etat fédératif dont les compétences n'ont cessé de s'étendre aux dépens de la souveraineté des cantons dont il se compose. C'est dire qu'au cours des dix-sept lustres de son existence constitutionnelle, ses charges ont augmenté pour deux raisons principales. D'une part il a été entraîné dans le grand mouvement qui, depuis plusieurs générations, porte toutes les collectivités humaines à confier des tâches sans cesse grandissantes à l'État. Et d'autre part la centralisation administrative, qui se poursuit en Suisse depuis 1848, a transféré des fardeaux de plus en plus nombreux des budgets cantonaux au budget fédéral. De ce fait, si les budgets cantonaux n'ont pas diminué, — l'accroissement de la population, de la richesse et de l'étatisme ayant compensé et au-delà l'action de la centralisation — ils ont cependant subi un rythme d'accroissement beaucoup plus lent.

Notre propos est tout d'abord de rappeler les phases et d'indiquer les causes principales de l'augmentation des dépenses fédérales, d'examiner ensuite les sources toujours plus nombreuses et plus abondantes auxquelles le législateur a puisé pour y faire face et de signaler enfin l'endettement croissant de la Confédération. Dans une très brève conclusion nous ne chercherons pas, en prolongeant les courbes de l'évolution passée, à prédire l'avenir. Nous nous bornerons à indiquer les diverses possibilités futures. Dans toute cette étude il ne sera pas question des finances communales qui, en raison même de leur importance et de leur inégalité, mériteraient une monographie spéciale. Quant aux finances des vingt-cinq cantons suisses, nous n'en parlerons qu'accessoirement pour mieux illustrer l'évolution de celles de la Confédération.

Pour ne pas encombrer de chiffres le texte de cette note, dont les sources principales sont les publications officielles d'ordre statistique,* nous la ferons suivre de quelques tableaux auxquels le lecteur voudra bien se reporter. Nos développements, en effet, ne seront guère que les commentaires explicatifs des tendances qui se dégagent avec une netteté remarquable des statistiques présentées.

Le Gouvernement suisse a toujours été, en théorie, partisan des principes d'unité et d'universalité budgétaires. En conséquence il n'a jamais connu, dans sa terminologie administrative, ni budgets extraordinaires, ni budgets ordinaires, mais seulement des budgets tout court. Les circonstances l'ont cependant amené à des pratiques nettement inconciliables avec ces principes.

Tout d'abord il a toujours annexé à ses budgets principaux, auxquels correspondaient, l'exercice clos, des "comptes d'administration," des budgets et des comptes relatifs à divers établissements publics exploités en régie directe. Ensuite, depuis la nationalisation des chemins de fer en 1910, il a établi des budgets et des comptes distincts pour cette grande entreprise dont la responsabilité administrative et financière incombe à la Confédération, mais qui n'est pas soumise à la gestion de son ministère des finances. Enfin, depuis fort avant la guerre mondiale et surtout pendant et immédiatement après celle-ci, les dépenses exceptionnelles les plus importantes ne furent pas inscrites au budget, mais portées à un compte spécial. Ce compte, dit compte capital ou bilan, était alimenté par les emprunts dont le service seul figurait au budget. Depuis la guerre on versa de plus à ce compte le produit des impôts de guerre.

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* Les tableaux et graphiques à la fin de cette étude ont été préparés, selon mes indications, par Madame J. Heimbrod, secrétaire adjointe de l'Institut Universitaire de Hautes Études Internationales. Ils sont basés sur les données de l'Annuaire statistique de la Suisse, des Messages du Conseil fédéral, des budgets et des comptes annuels de la Confédération et de diverses publications du Bureau fédéral de Statistique. Les informations les plus récentes m'ont été fort obligeamment communiquées par M. L. Rösli, haut fonctionnaire à ce Bureau.

Si ces méthodes, fort discutables en elles-mêmes,* n'ont pas donné lieu à tous les abus qui s'attachent en général aux budgets extraordinaires, c'est qu'elles étaient appliquées par des magistrats probes et le plus souvent doués du goût de l'ordre et de l'économie qui caractérise peut-être encore et qui, jusqu'à la guerre, caractérisait certainement le peuple suisse. Mais si même ces méthodes se sont révélées relativement inoffensives dans la pratique, elles ne sont certes pas pour faciliter la tâche de l'historien.

Sans rendre compte ici de tous les obstacles que nous avons dû surmonter pour cela, nous avons cherché à ne présenter dans les tableaux que des chiffres comparables les uns aux autres. Nous avons appelé recettes et dépenses ordinaires de la Confédération celles qui figurent au compte d'administration. Elles ne comprennent que les excédents ou déficits nets des exploitations en régie et sont totalement distinctes de celles des chemins de fer. Pour les besoins de notre exposé nous avons réuni sous le nom de recettes et dépenses extraordinaires des sommes qui ne figurent pas comme telles dans la comptabilité fédérale. Aux recettes nous avons inscrit le rendement des trois impôts de guerre et aux dépenses les frais occasionnés directement et indirectement par la guerre. Ces frais se composent du coût de la mobilisation de l'armée et du déficit net des vastes opérations commerciales entreprises par le Gouvernement fédéral pour assurer le ravitaillement du pays de 1914 à 1919.

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* C'est là du reste l'avis du Gouvernement actuel, ainsi que l'atteste le passage suivant extrait du Message du Conseil fédéral à l'Assemblée fédérale concernant le Budget de la Confédération pour 1930, p. 1: "Rappelons ici que depuis 1886, au chapitre des dépenses ordinaires est venue chaque année s'ajouter une liste importante de dépenses extraordinaires. Celles-ci atteignirent parfois, déjà avant la guerre, des chiffres relativement élevés. Il va de soi qu'elles devaient grandir démesurément dans le bouleversement de la période de guerre. Elles restèrent considérables pendant toute la période de l'immédiat après-guerre. Elles s'élevèrent encore à 182 millions de francs en 1920. Elles sont ramenées à 41 millions en 1925 pour tomber progressivement et descendre enfin à 14 millions en 1928. Le Conseil fédéral a résolu depuis longtemps de supprimer définitivement le chapitre des dépenses extraordinaires pour faire figurer toutes les dépenses, sans exception, au budget et au compte administratif. Les circonstances, mais surtout les décrets comportant comptabilisation directe de certaines grosses dépenses au compte capital l'en ont empêché jusqu'en 1929. Nous sommes heureux de pouvoir rompre avec une méthode budgétaire dangereuse pour vous présenter, enfin, un budget répondant en tout point aux exigences de l'universalité."

Si nous examinons la courbe des dépenses ordinaires,* nous constaterons que dès l'origine elle n'a cessé d'être ascendante. Ce mouvement ascendant qui, pendant un demi-siècle s'est maintenu dans des limites qui nous paraissent aujourd'hui singulièrement modestes, s'accélérait déjà au cours de la première décennie du présent siècle. Dès 1910 le Gouvernement le signalait dans les termes suivants en présentant au Parlement son projet de budget pour 1911 :

> Tandis que l'ensemble des recettes et celui des dépenses étaient montés peu à peu de 7 à 103 millions de francs, en nombre rond, de 1849 à 1900, soit durant un demi-siècle, l'augmentation est de plus de 50 millions durant la dernière période décennale et elle atteint même 11 millions de 1910 à 1911. Cette progression excessive démontre avec quelle rapidité extraordinaire se développe aujourd'hui le ménage de la Confédération.†
>
> Quant à la question déjà posée plusieurs fois dans nos précédents rapports, à savoir s'il est possible de procurer à la Confédération de nouvelles ressources dans un avenir prochain, nous avons des raisons d'en douter, étant donnés le renchérissement général de la vie, le resserrement des affaires et les nombreux impôts qui pèsent déjà assez lourdement sur notre population. En tout cas, une tentative de ce genre se heurterait à de très sérieuses difficultés. Il ne nous resterait donc guère, pour le moment, d'autre alternative que de nous efforcer d'équilibrer nos budgets avec les ressources dont nous pouvons disposer aujourd'hui ; mais il importe que nous usions de la plus stricte économie et d'une extrême réserve dans l'approbation des crédits qui n'ont pas un caractère d'urgence.‡

C'était de la vigilance. Ce n'était pas encore de l'inquiétude. Mais lorsqu'en 1913 un déficit d'environ 5 millions fit son apparition, le Gouvernement s'alarma sérieusement. Il envisagea la nécessité de certaines économies et chargea un expert financier du soin de lui proposer de nouvelles ressources destinées à rétablir l'équilibre dangereusement compromis.

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* Cf. tableau I et graphique I, p. 546 et 547 ci-dessous.

† *Message du Conseil fédéral à l'Assemblée fédérale concernant le budget de l'exercice 1911*, p. III.

‡ Ibid., p. V.

En éclatant au début d'août 1914, la guerre mondiale provoqua naturellement une crise aiguë. Non seulement les dépenses allaient prodigieusement s'enfler, mais encore les prévisions de recettes allaient être cruellement déçues.

Le premier mouvement du Gouvernement fut de réduire les dépenses ordinaires par diverses mesures d'économie, notamment en matière de personnel. La diminution des dépenses ordinaires en 1914 et 1915 est, pour une part, le fruit de ces efforts. Mais pour une part aussi cette diminution résulta de l'abaissement des dépenses militaires ordinaires.

Dès avant l'ouverture des hostilités entre ses voisins, la Suisse mobilisa toute son armée. Il s'ensuivit, outre une très lourde charge extraordinaire, sur laquelle nous reviendrons, une certaine atténuation du budget militaire tel qu'il était établi en vue du temps de paix.

Les dépenses ordinaires, après avoir baissé de 5 à 6 % en 1914 et 1915, ne tardèrent pas à se relever très sensiblement dès 1916. Ce relèvement fut de l'ordre de 4 % par rapport à 1913 en cette année, de 37 % en 1917 et de 62 % en 1918. Les dépenses ordinaires continuèrent à augmenter jusqu'en 1921, où elles atteignirent un premier maximum de 317 millions, un peu plus de trois fois le montant de celles de 1913 que le Gouvernement de l'époque avait jugées excessives et à peine tolérables.

Ce qui explique cette rapide évolution ce fut d'abord l'augmentation du service de la dette. Les neuf millions que celui-ci absorbait en 1913 étaient devenus 116 millions en 1921, soit un montant supérieur à celui du principal de la dette d'avant-guerre.

L'évolution s'explique ensuite par l'augmentation du nombre et des traitements du personnel fédéral. L'augmentation des traitements fut pour une part imposée par le renchérissement de la vie et pour une part favorisée par l'accroissement général des dépenses publiques et par ses répercussions psychologiques dans les milieux gouvernementaux et parlementaires. Une fois la première panique passée, le crédit de la Confédération s'étant avéré d'une solidité inespérée, le Gouvernement, réconforté sinon rassuré quant à l'avenir, semble en avoir conçu une générosité quelque peu fébrile. Preuve en soit le curieux passage suivant, extrait du Message accompagnant le budget de 1916. Pour justifier l'augmentation de traitements, le Gouvernement alléguait, outre le renchérissement considérable de la vie, le fait que le surplus de dépenses résultant de ses propositions, "important en lui-même, perd cependant de son importance s'il est comparé avec tous les autres sacrifices énormes que les événements de la guerre ont déjà imposés et imposeront encore en 1916 aux finances de la Confédération."*

Parallèlement à l'impressionnante augmentation des dépenses ordinaires, se poursuivait celle des dépenses extraordinaires.† Les frais de la mobilisation à eux seuls, en 1919, atteignirent un total de plus de 1,200,000,000 de francs. Ces dépenses pour l'année 1914 avaient déjà dépassé celles de toute l'administration ordinaire de la Confédération et en 1915, 1916 et 1917, elles atteignirent un chiffre presque double. En outre, dès le début de la crise, la Confédération dut se faire importateur et transporteur de denrées alimentaires pour assurer le ravitaillement du pays soumis par les belligérants à un blocus de plus en plus rigoureux. Les opérations entreprises de ce fait se traduisirent par un excédent de dépenses, qui, ajoutées aux frais de la mobilisation et aux dépenses ordinaires, portèrent le fardeau annuel à un total de plus d'un demi-milliard par an.

Ce fardeau, loin de s'atténuer à la démobilisation, à la fin de 1918, continua d'augmenter jusqu'en 1924. L'accroissement du service de la dette, la liquidation très onéreuse de diverses entreprises de guerre, puis l'aide aux chômeurs dans la crise des années 1920 et suivantes, tout contribuait, malgré une fiscalité de plus en plus énergique et de sérieux efforts d'économies, à retarder le rétablissement de l'équilibre. Ce rétablissement ne paraissait définitivement acquis qu'en 1924, date à laquelle enfin l'amortissement de la dette publique commençait à l'emporter sur les nouveaux appels au crédit auxquels on avait dû recourir.

L'amélioration de la situation qui en résultait ne fut cependant que d'assez courte durée. Dès 1932, le compte ordinaire accusa de nouveau un léger déficit et le budget de 1933, établi il est vrai avec un pessimisme salutaire, fait prévoir un nouvel et très sensible accroissement de ce déficit.

Quelle fut, en face des avalanches successives de dépenses que la guerre et l'après-guerre avaient déclenchées, l'attitude du Gouvernement suisse?

En août 1914, sa situation n'était assurément pas enviable. Son budget ordinaire du temps de paix était déjà légèrement déséquilibré. La mobilisation de toute l'armée s'imposait et la Confédération devait seule assumer la charge du demi-million de francs par jour environ que devait coûter son entretien en campagne. D'autre part les ressources faisaient défaut. Les recettes douanières, qui représentaient plus de 80 % du revenu fédéral en temps ordinaire, tarissaient par suite de l'arrêt des importations. Tout le domaine des impôts directs était, de par la Constitution même, réservé à la fiscalité cantonale dont les embarras, quoique moindres, n'étaient pas pour disposer les gouvernements locaux à la générosité envers le pouvoir central.

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* *Message du Conseil fédéral à l'Assemblée fédérale concernant le budget de l'exercice 1916*, p. IV.

† Cf. tableau II et graphique II, p. 548 ci-dessous. Nous n'avons présenté ici que les données pour les années 1914 à 1919, les variations et les complexités de la comptabilité fédérale ne nous ayant pas permis d'établir des chiffres comparables pour les années suivantes.

En attendant les révisions constitutionnelles nécessaires, il ne restait donc guère que le recours au crédit. Ce crédit, il est vrai, était de premier ordre. Une organisation bancaire et un institut d'émission dont le caractère et les réserves leur permettaient de venir promptement au secours de la Trésorerie fédérale sans compromettre trop dangereusement la tenue de la monnaie; une population économe, aisée et animée d'un ardent esprit patriotique qui la portait à répondre avec empressement aux appels du pays; une dette consolidée faible et bien classée, dont la Confédération était elle-même l'un des principaux porteurs: tous ces facteurs favorisaient une politique d'emprunt.

Ayant fait face aux nécessités immédiates en puisant dans ses propres réserves et en recourant aux avances de la Banque Nationale, le Gouvernement fédéral émit dès novembre 1914 un premier emprunt à long terme. Le résultat dépassa son attente. D'un montant nominal de 50 millions, il en rapportait plus de 179, quoique son taux n'ait été que de 5 %. Le tableau suivant indique les dates, les modalités et les résultats de tous les emprunts émis par le Gouvernement fédéral pendant la guerre sur le marché intérieur:

Date de l'émission		Montant nominal (en milliers de francs)	Cours d'émission en %	Taux	Résultat de la souscription (en milliers de francs)	Nombre de souscripteurs	Remboursable de ..... à .....
Année	Mois						
1914	XI	50,000	100	5	179,107	28,295	1919–34
1915	VII	100,000	96½	4½	190,580	?	1926–55
1916	II	100,000	97½	4½	124,909	24,496	1921
1916	VI/VII	100,000	97	4½	127,371	21,283	1926
1917	II	100,000	96	4½	139,154	25,968	1932
1917	VI/VII	100,000	96	4½	150,423	23,681	1934
1918	I	150,000	100	5	151,466	31,601	1948
1918	X	100,000	99½	5	117,048	24,657	1924

De plus, en mars 1915, le Gouvernement suisse emprunta \$15,000,000 à New York, à 5½ %, pour financer ses importations de céréales.

Malgré le succès de ces opérations de crédit et même pour assurer ce succès, la Confédération dut naturellement chercher aussi à augmenter ses revenus fiscaux. Cette nécessité était d'autant plus impérieuse, qu'ainsi que nous l'avons déjà observé, la guerre eut pour effet de diminuer fortement le rendement des douanes et celui des diverses régies publiques qui constituaient les principales et presque les seules recettes du budget fédéral.

Dès 1915 le taux de la taxe d'exemption du service militaire fut doublé. Mais cet impôt, frappant la fortune personnelle et celle escomptée par héritage des jeunes gens exemptés pour raisons de santé de l'obligation militaire, ne fut pas d'un grand secours. Son rendement, partagé par parts égales entre la Confédération et les cantons, ne rapporta jamais à celle-là beaucoup plus de 5 millions par an.

Dès 1915 aussi, le Gouvernement fédéral obtint du peuple le droit de prélever en une fois sur la fortune et sur les salaires un impôt exceptionnel de guerre. Après cession de 20 % de son rendement aux cantons, il rapporta environ 100 millions à la Confédération.

Dès 1917, le Gouvernement fédéral commença à percevoir un impôt annuel sur les bénéfices de guerre qu'il avait décrété lui-même en vertu de ses pleins-pouvoirs. Cet impôt, qui ne fut abrogé qu'en 1920, fut extrêmement productif. Même après cession de 10 % de son rendement aux cantons, il rapporta à la Confédération 670 millions, dont plus de 250 millions avant la fin de la guerre. Comme l'impôt de guerre, il alimenta le budget extraordinaire et vint ainsi couvrir une part appréciable des dépenses de mobilisation et de ravitaillement.

Depuis 1918 nous voyons figurer au compte d'administration une somme de plus de 9 millions tirée de divers droits de timbre introduits l'année précédente. Cet ensemble d'impôts sur l'émission, le revenu et la négociation des valeurs mobilières, fut encore développé par la suite, de sorte qu'il arriva à rapporter près de 69 millions à la Confédération en 1928, année de son rendement maximum.

Enfin, après avoir rejeté une proposition d'impôt direct fédéral d'initiative socialiste en 1918, le peuple accepta l'an suivant un second projet d'impôt de guerre extraordinaire que lui avait soumis le Gouvernement. Ce nouvel impôt direct sur la fortune et le produit du travail fut perçu jusqu'à l'an dernier. Son rendement, partagé entre la Confédération et les cantons dans le rapport de 4 à 1, rapporta à celle-là plus d'un demi-milliard.

Toutes ces recettes, dont les unes furent temporaires et dont les autres sont devenues permanentes, contribuèrent certes à consolider les finances de la Confédération. Elles furent puissamment soutenues en cela par les revenus douaniers. Ceux-ci, qui se relevèrent très rapidement de leur chute dès la fin de la guerre et qui, en 1931, se montèrent à un chiffre qui fut à celui de 1913 comme 37 est à 10, eussent suffi à eux seuls à équilibrer un budget plus de trois fois supérieur à celui d'avant-guerre. Mais l'accroissement des dépenses avait été encore plus rapide.

Pour suppléer à l'insuffisance de ses recettes, tant de son compte d'administration que de son compte capital, le Confédération a donc dû s'endetter très lourdement. De 111 millions qu'elle était en 1913, la dette publique flottante et consolidée monta à 1478 millions en 1918 et à 2093 millions en 1930.* Elle venait à peine de subir ses premières réductions que déjà la crise actuelle menaça la suite de son amortissement. De plus les Chemins de fer fédéraux (C.F.F.), dont le budget est garanti par la Confédération, ont vu se doubler leur dette qui, d'environ 1½ milliard en 1913, est aujourd'hui de près de 3 milliards. Et, fait beaucoup plus grave encore, le rendement réduit des C.F.F. ne leur permet plus d'assurer l'amortissement de cette dette par leurs propres moyens.

Comme, d'autre part, les dettes des cantons ont à peu près doublé au cours des vingt dernières années et que celles des communes, dont le montant total n'a pas été calculé, ont probablement augmenté dans une proportion égale, la situation du contribuable suisse est aujourd'hui sérieuse, pour ne pas dire alarmante. Calculée par tête de la population, la charge moyenne des dettes fédérales et des dettes consolidées des cantons, qui était en 1913 de fr. 637,40, devint en 1932 de fr. 1588,80.† Dans ce total la part afférant à la Confédération monta pendant cette période de 68 % à 75,8 %.

Chose assez curieuse, au cours de cette évolution où nous voyons les dépenses, les recettes et les dettes de la Confédération augmenter sensiblement plus vite que celles des cantons, les subventions versées annuellement par celle-là à ceux-ci ont augmenté dans une proportion beaucoup plus forte encore.‡ C'est là, avec l'accroissement absolu et relatif de la charge fiscale et de la dette publique, le phénomène politique le plus remarquable de cette époque troublée. Il atteste un progrès très appréciable de la centralisation qui caractérise toute l'histoire de la Suisse depuis trois quarts de siècle.

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* Cf. tableau III et graphique III, p. 548 et 549 ci-dessous.

† Cf. tableau IV et graphique IV, p. 550 et 551 ci-dessous.

‡ Cf. tableau V et graphique V, p. 552 ci-dessous. Par subventions ordinaires et extraordinaires on entend celles que la Confédération s'est obligée à verser aux cantons, les premières en vertu d'une loi générale, les secondes par une décision spéciale. Les parts légales sont les sommes dues aux cantons par suite de la perception d'un impôt fédéral dont une quote-part du rendement leur a été réservée.

Quant à l'avenir, trop d'éléments d'incertitude pèsent sur lui pour qu'il soit possible de le prédire avec quelque assurance. Ce qui paraît évident, c'est que le peuple suisse aura bientôt à prendre des résolutions décisives. Il aura à choisir entre une politique qui, dotant la Confédération de nouvelles ressources, tendra fatalement à réduire encore l'autonomie des cantons, et une politique qui, émancipant à nouveau les cantons de la tutelle de plus en plus lourde de la Confédération, devra réduire les charges de cette dernière. Le fédéralisme, qui combat la centralisation et défend l'autonomie cantonale, a incontestablement gagné du terrain dans l'opinion suisse depuis une génération. Mais la tendance contraire s'est non moins incontestablement affirmée dans les faits par suite d'une évolution qui paraît presque fatale.

La Suisse offre ainsi une analogie de plus avec l'Europe, dont on a si souvent dit qu'elle était l'image réduite. Comme le politique tend au nationalisme en Europe et l'économique à l'union, de même le politique favorise en Suisse le fédéralisme et l'économique la centralisation. Le problème fondamental pour le législateur en Suisse, comme en Europe et dans le monde, n'est-il pas de concilier ces tendances contraires? Et la meilleure solution, sur le plan national comme sur le plan international, ne sera-t-elle pas celle qui, tout en respectant le plus scrupuleusement ce qui est vraiment respectable dans l'amour de la plus petite patrie, assurera au mieux la sécurité et la prospérité qui sont les biens suprêmes de la plus grande?

TABLEAU I

1850–1933 RECETTES ET DÉPENSES ORDINAIRES DE LA CONFÉDÉRATION

Années	Recettes ordinaires (Compte d'administration)	Dépenses ordinaires (Compte d'administration)
	en 1,000 frs.	en 1,000 frs.
1850–59	6,617	5,597
1860–69	9,115	8,952
1870–79	16,540	16,845
1880–89	27,499	26,017
1890–99	49,757	49,843
1900–09	72,880	71,355
1910	96,421	90,885
1911	98,562	98,814
1912	102,879	101,474
1913	100,486	105,839
1914	78,810	101,343
1915	77,982	99,533
1916	93,470	110,116
1917	96,505	147,253
1918	108,804	170,699
1919	149,840	245,496
1920	177,361	276,898
1921	189,632	317,203
1922	235,452	314,860
1923	253,445	298,914
1924	282,865	304,472
1925	298,952	307,975
1926	313,764	323,143
1927	331,316	332,900
1928	383,121	359,358
1929	395,957	371,966
1930	433,106	426,374
1931	428,400	426,145
1932	419,909	444,082
1933	371,220*	442,020*

* (Prévisions budgétaires.)

GRAPHIQUE I

1850–1933 RECETTES ET DÉPENSES ORDINAIRES DE LA CONFÉDÉRATION

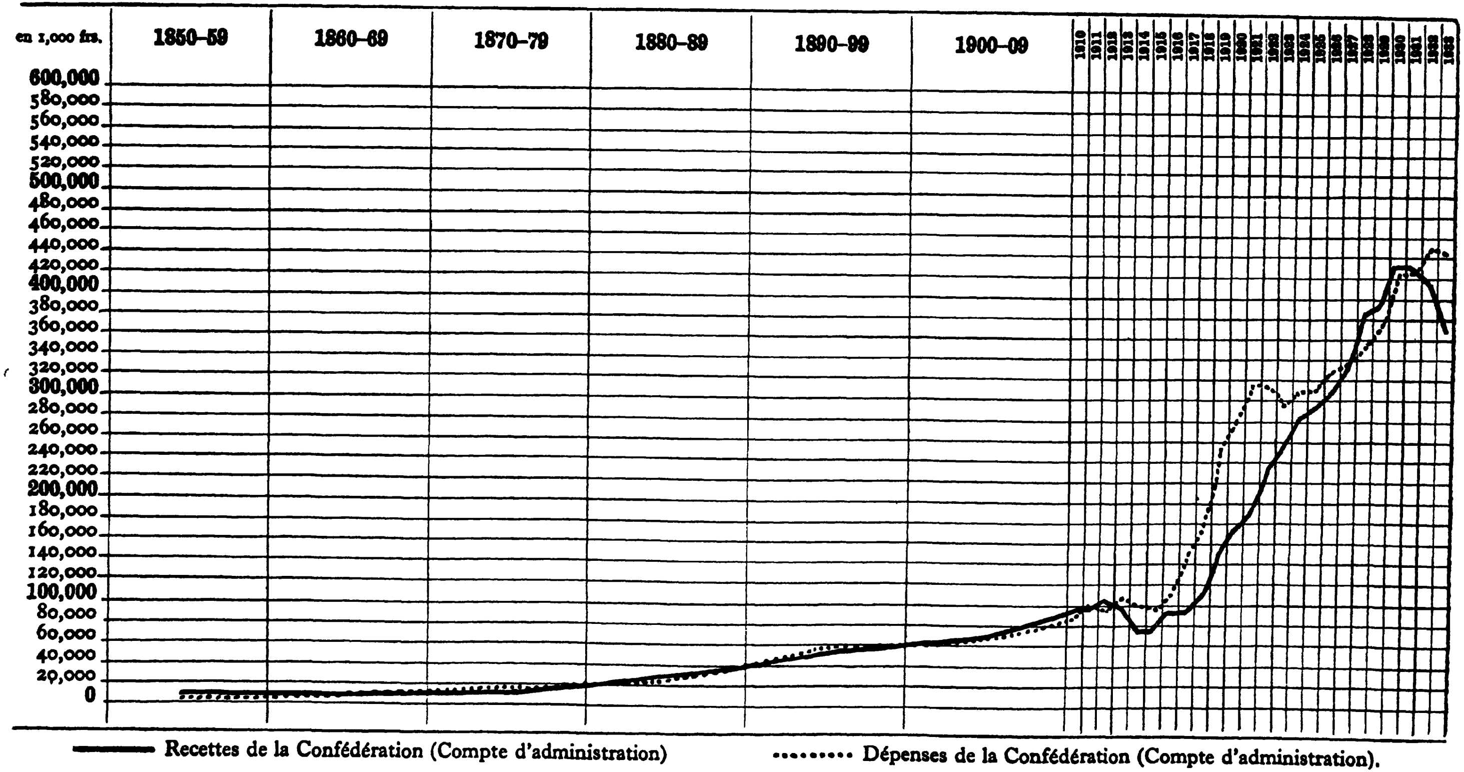
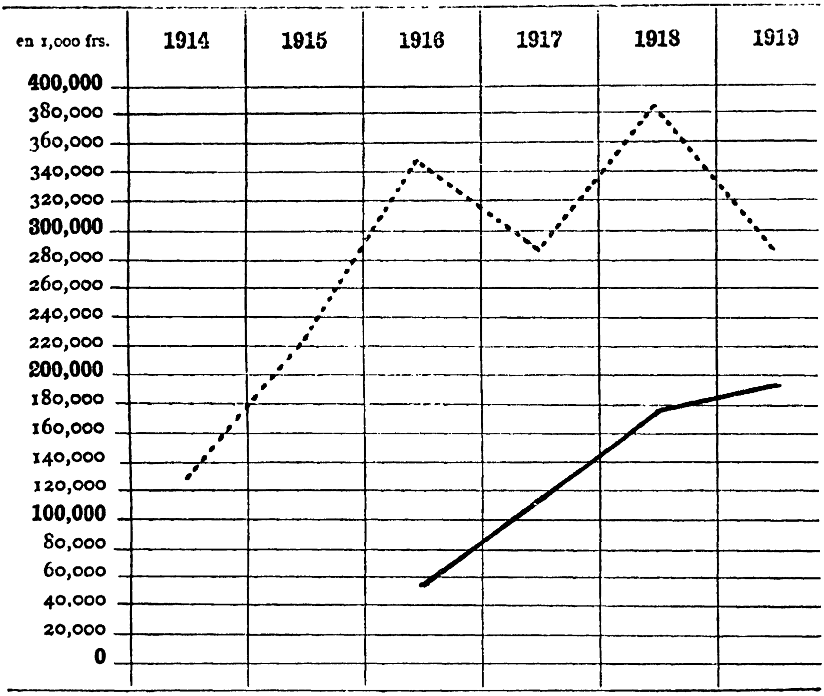


TABLEAU II ET GRAPHIQUE II

1914–1919 RECETTES ET DÉPENSES EXTRAORDINAIRES PENDANT LA GUERRE

Années	*Recettes extraordinaires* (1er impôt de guerre depuis 1916; Impôt fédéral sur les bénéfices de guerre, depuis 1917)	*Dépenses extraordinaires* (Mobilisation et Ravitaillement)
	en 1,000 frs.	en 1,000 frs.
1914	—	129,726
1915	—	225,733
1916	56,492	355,365
1917	114,562	288,354
1918	178,855	383,015
1919	193,216	289,233



▬▬▬ Recettes extraordinaires. •••••••• Dépenses extraordinaires.

TABLEAU III

1850–1932 DETTE DE LA CONFÉDÉRATION

Années	Dette de la Confédération (consolidée et flottante) (sans C.F.F.)	Dette des C.F.F. (chemins de fer fédéraux) (consolidée et flottante)	Dette totale de la Confédération
	en 1,000 frs.	en 1,000 frs.	
1850	4,643	—	4,643
1860	4,250	—	4,250
1870	20,450	—	20,450
1880	34,754	—	34,754
1890	54,150	—	54,150
1900	64,437	—	64,437
1910	91,150	1,484,724	1,575,874
1913	110,770	1,564,073	1,674,843
1914	242,310	1,594,179	1,836,489
1915	474,010	1,615,202	2,089,212
1916	765,519	1,633,762	2,399,281
1917	1,033,553	1,680,551	2,714,104
1918	1,477,892	1,813,117	3,291,009
1919	1,794,061	1,958,647	3,752,708
1920	1,899,330	2,142,214	4,041,544
1921	2,116,576	2,283,623	4,400,199
1922	2,089,702	2,384,034	4,473,736
1923	2,260,473	2,433,707	4,694,180
1924	2,304,382	2,484,572	4,788,954
1925	2,255,120	2,600,168	4,855,288
1926	2,175,264	2,657,015	4,832,279
1927	2,184,142	2,729,878	4,914,020
1928	2,152,664	2,799,932	4,952,596
1929	2,072,550	2,829,179	4,901,729
1930	2,093,239	2,825,899	4,919,138
1931	1,963,286	2,922,299	4,885,585
1932	1,932,267	2,980,110	4,912,377

GRAPHIQUE III

1850–1932 DETTE DE LA CONFÉDÉRATION

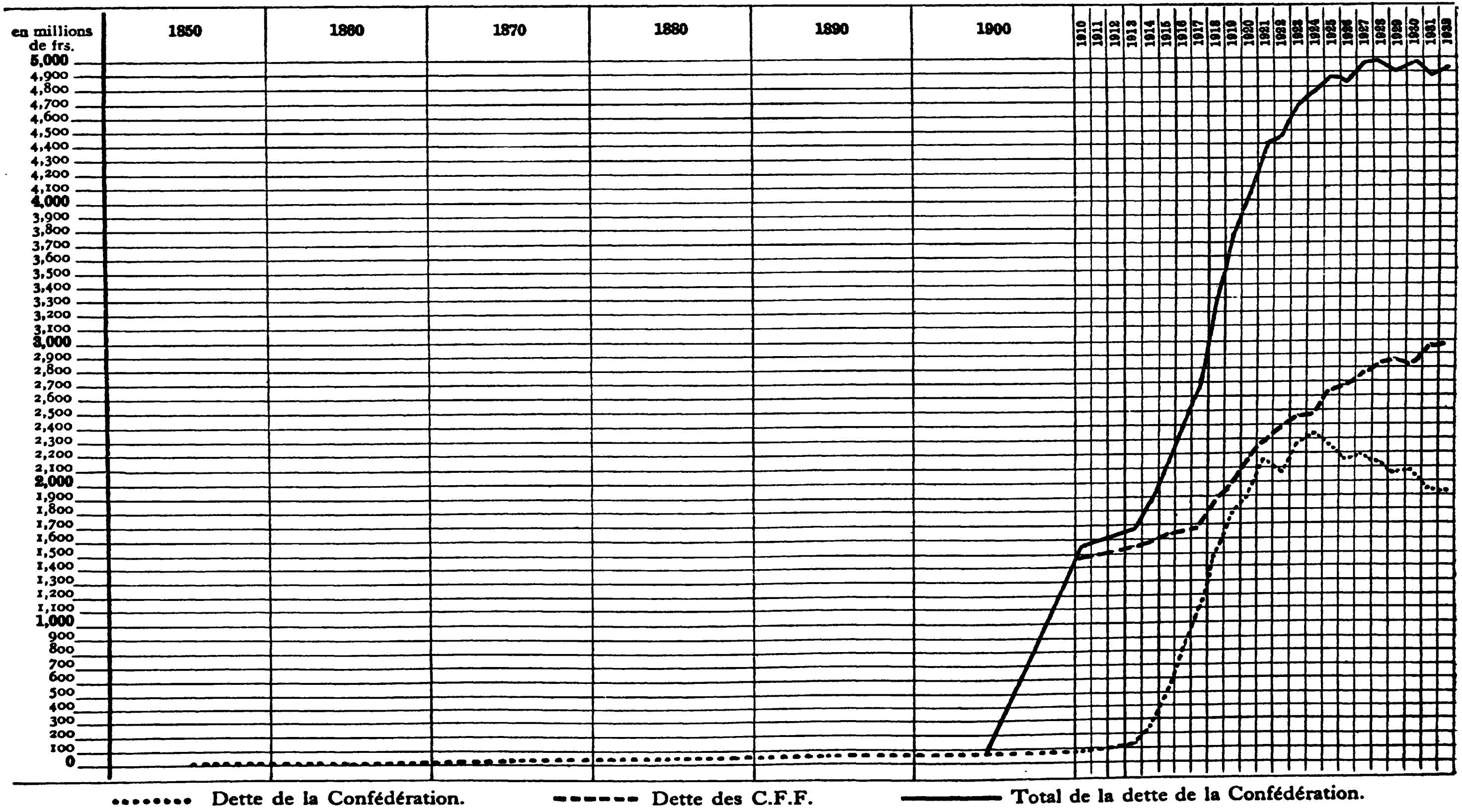


TABLEAU IV

1913–1932 CHARGE DE LA DETTE DE LA CONFÉDÉRATION ET DES CANTONS PAR TÊTE D'HABITANT

Années	Dette fédér. avec C.F.F. consolidée et flottante par tête	Total des dettes des cantons (consolidée) par tête	Total par tête des dettes fédérale et cantonale
	Frs.	Frs.	Frs.
1913	433,45	203,95	637,40
1914	471,20	209,40	680,60
1915	538,05	224,55	762,60
1916	617,95	235,80	853,75
1917	698,15	236,10	934,25
1918	848,30	251,40	1,099,70
1919	970,00	284,30	1,251,60
1920	1,042,45	318,20	1,360,65
1921	1,132,50	352,25	1,484,75
1922	1,154,90	363,05	1,517,95
1923	1,208,80	370,25	1,579,05
1924	1,229,10	387,85	1,616,95
1925	1,241,85	398,40	1,640,25
1926	1,231,50	394,40	1,625,90
1927	1,242,20	398,55	1,640,75
1928	1,241,80	396,60	1,638,40
1929	1,218,85	388,20	1,607,05
1930	1,214,15	386,35	1,600,50
1931	1,197,25	386,35	1,583,60
1932	1,203,80	385,00	1,588,80

1913–1932 CHARGE DE LA DETTE DE LA CONFÉDÉRATION ET DES CANTONS PAR TÊTE D'HABITANT

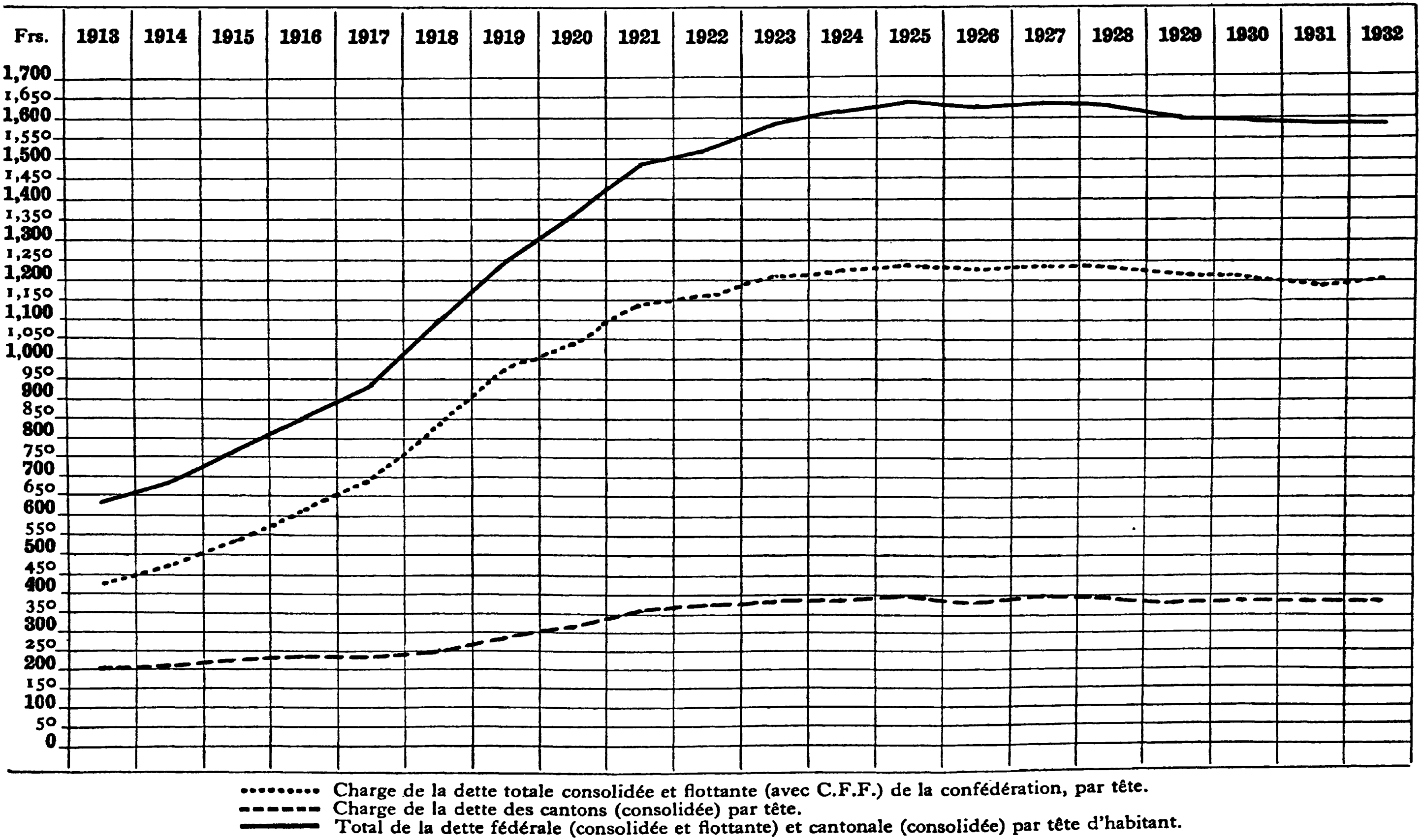
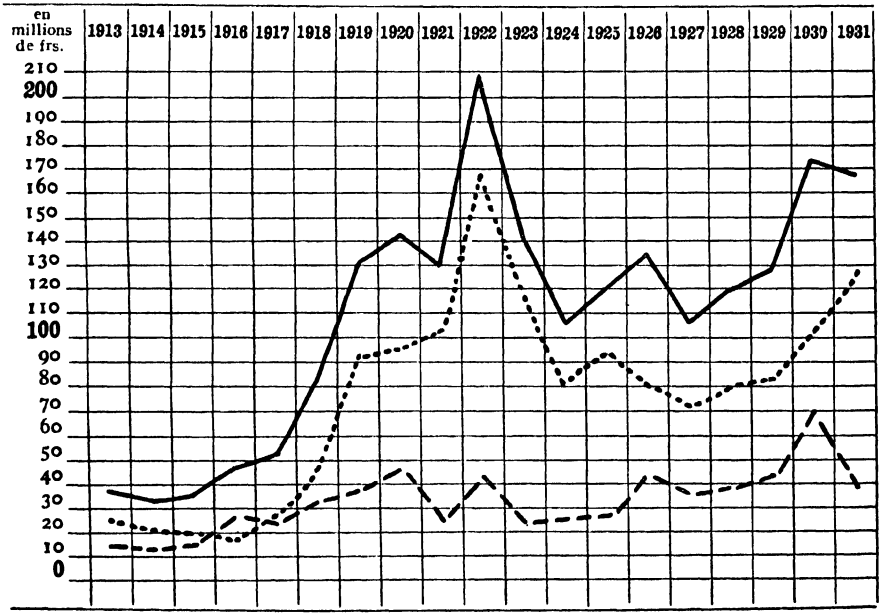


TABLEAU V ET GRAPHIQUE V

1913–1932 DÉVELOPPEMENT DES SUBVENTIONS ET PARTS LÉGALES VERSÉES PAR LA CONFÉDÉRATION AUX CANTONS

Années	Subventions ordinaires et extraordinaires (Total)	Parts légales	Total des Subventions et Parts légales
	Frs.	Frs.	Frs.
1913	24,851,089	12,653,375	37,504,464
1914	21,459,414	12,174,879	33,634,293
1915	19,880,007	15,492,720	35,372,727
1916	19,082,011	28,034,676	47,116,687
1917	27,472,291	25,893,583	53,365,874
1918	50,528,176	32,121,744	82,649,920
1919	92,599,369	37,741,316	130,340,685
1920	95,298,457	47,622,313	142,920,770
1921	103,541,096	25,612,811	129,153,907
1922	166,913,017	41,282,722	208,195,739
1923	115,282,624	25,550,674	140,833,298
1924	80,880,781	25,994,618	106,875,399
1925	93,474,112	26,739,441	120,213,553
1926	80,302,423	55,183,725	135,486,148
1927	71,075,447	36,072,208	107,147,655
1928	80,826,473	39,123,325	119,949,798
1929	84,667,079	44,394,390	129,061,469
1930	104,352,110	69,504,897	173,857,007
1931	129,838,177	39,173,807	169,011,984



•••••••• Total des subventions ordinaires et extraordinaires.

▬ ▬ ▬ ▬ Parts légales. ——— Total des subventions et parts légales.

DIE SEKUNDÄRE KRISE UND IHRE ÜBERWINDUNG

WILHELM RÖPKE, *Universität Marburg a.d. Lahn*

I

Die modernen Sozialökonomen geraten nicht in Verlegenheit, wenn sie erklären sollen, warum es überhaupt zu der gegenwärtigen Weltkrise gekommen ist. Es hat eine Zeit gegeben, in der die relative Stabilität des allgemeinen Preisniveaus während der letzten amerikanischen Hochkonjunktur viele darüber hinwegtäuschte, dass sich unter dieser gefährlich beruhigenden Decke die grösste Wirtschaftsexpansion vollzog, die die Wirtschaftsgeschichte in einem so kurzen Zeitraum bisher gesehen hat. Heute dürften alle verstanden haben, dass die gegenwärtige Wirtschaftskrise in ihrer Grundanlage und in ihren Ursprüngen nichts anderes gewesen ist als die aus der hundertjährigen Geschichte der Konjunkturen bekannte und durch die bisherige Konjunkturtheorie hinreichend erklärte und verständlich gemachte Reaktion auf eine Periode forcierter Investitionshäufung. Auch das Verständnis dafür, dass diese Reaktion ungewöhnlich intensiv und schmerzhaft sein musste, dürfte keine Schwierigkeiten bereiten, wenn man die Steilheit der abfallenden Kurve mit der Steilheit der voraufgehenden ansteigenden Kurve vergleicht. Nimmt man noch hinzu, dass diese unvermeidliche Reaktion in eine Weltwirtschaft hineinplatzte, die bereits voll von unerhörten wirtschaftlichen und politischen Spannungen war und diese Spannungen bis dahin im wesentlichen nur durch eine riesenhafte internationale Kreditgewährung einigermassen ausgeglichen hatte, so ist der Schluss berechtigt, dass uns Ursprung und Charakter der Krisis im allgemeinen keine ungelösten Rätsel mehr aufgeben. Natürlich sind auch hier noch längst nicht alle Fragen geklärt, und manche Meinungsverschiedenheit harrt noch der Versöhnung. Selbst wenn wir davon absehen, dass hier und dort die Unvermeidlichkeit der Reaktion keineswegs anerkannt wird — ein Eindruck, den man z. B. von Keynes nach seinem *Treatise on Money* gewinnt —, so bleibt doch selbst im Kreise derjenigen, die die Krise als eine unvermeidliche Reaktion auf die voraufgegangene Expansionsperiode ansehen, sehr viel Raum für eine mehr oder weniger belebte Diskussion, in deren Mittelpunkt vor allem die Frage steht, wie denn die Unvermeidlichkeit der Reaktion zu begründen ist. Sicherlich sind noch nicht alle Vertreter jener Form der monetären Konjunkturtheorie, die in der Steigerung des allgemeinen Preisniveaus das Kriterium einer von der Reaktion bedrohten Hochkonjunktur erblickt, durch die Erfahrungen der jüngsten amerikanischen Hochkonjunktur von der Revisionsbedürftigkeit ihrer Theorie überzeugt worden, um so weniger, als die Erforschung der Kriterien des wirklich "neutralen" Geldes erst in den Anfängen steckt. In dieser Diskussion dürfte ferner die auch von mir für ausserordentlich wichtig gehaltene Frage eine Rolle spielen, ob die heute fast schon axiomatisch gewordene Kapitalmangeltheorie als eine Theorie der Unvermeidlichkeit der Reaktion einer rücksichtslos eindringenden und auch vor einem so ehrwürdigen Namen wie Böhm-Bawerk nicht haltmachenden Analyse des volkswirtschaftlichen Gesamtprozesses standhalten wird, und die weitere Frage, welche andere Erklärung für den Zusammenbruch der Expansionsperiode an die Stelle der möglicherweise unhaltbar werdenden Kapitalmangeltheorie gesetzt werden soll. Wir können uns vorstellen, dass es bei einer solchen Diskussion hoch hergehen würde, und dass sich dabei sehr gute Freunde ernstlich aneinander erhitzen könnten, aber wir wollen sie an dieser Stelle und in diesem Augenblicke nicht entfesseln, nicht um des lieben Friedens willen—der wissenschaftliche Pazifismus pflegt bekanntlich mit um so stärkeren geheimen Rüstungen einherzugehen!—, sondern um die Diskussion auf eine Frage zu lenken, in der die Meinungen noch weit schroffer auseinandergehen, und zwar deshalb, weil hier im Augenblick noch fast alles auf tastenden Hypothesen beruht und sich hier um so unbehinderter das Temperament entfaltet, das sich an der ungeheuren praktischen Wichtigkeit einer richtigen Antwort entzündet. Wir meinen damit die Frage, wie es zu der mörderischen *Degenerierung der gegenwärtigen Krise* kommen konnte, die nachgerade das gesamte Sozialsystem des Abendlandes in seinem Bestande bedroht.

2

Wir wiederholen, dass niemand von uns auf die Frage, wie es denn überhaupt zu dieser Krise hat kommen können, um eine einleuchtende und mit der Gesamttendenz der modernen Nationalökonomie harmonierende Antwort verlegen ist. Aber Verlegenheit oder doch zum mindesten Unsicherheit zeigt sich, wenn wir die unheimliche Hartnäckigkeit und den rückfälligen Charakter der Krise erklären sollen, und unserer Unsicherheit in der Aetiologie und Diagnose entspricht unsere

Unsicherheit in der Therapie, die wir dadurch zu verdecken geneigt sind, dass wir unseren Gegner als "sadistisch"—wenn er eine restriktive Krisenpolitik empfiehlt—oder als "frivol" bezeichen—wenn er eine expansive Krisenpolitik empfiehlt. Je weiter die Krisis fortschritt und je weiter die Hoffnung auf die Wiedergewinnung eines neuen wirtschaftlichen Gleichgewichts hinausgeschoben wurde, um so zweifelhafter wurde es, ob die Situation noch länger mit unseren überkommenen sozialökonomischen Denkkategorien verstanden werden könne. Sollte die Krise noch nach Jahren nur deshalb nichts von ihrer Schärfe verlieren und sich sogar noch verschlimmern, weil dieselben Ursachen, die zu ihrer Entstehung geführt haben, mit unverminderter oder gar gesteigerter Intensität nachwirken? Immer kleiner wurde die Zahl derjenigen, die bereit waren, diese Frage zu bejahen, und immer grösser die Zahl derjenigen, die davon sprachen, dass die Krise ihren ursprünglichen Sinn der Reinigung und Readjustierung verloren hatte und zu einem sinnlosen Prozess mörderischer Zerstörung degeneriert war. So entstanden schliesslich drei grosse Gruppen, die sich noch immer erbittert befehden.

Die *erste Gruppe* wird von denjenigen gebildet, die noch immer darauf beharren, dass die gegenwärtige Krise auch in ihrem weiteren verhängnisvollen Verlaufe mit denselben Massstäben wie frühere Krisen zu messen sei und trotz ihrer riesenhaften Ausmasse und trotz ihrer beispiellosen Hartnäckigkeit noch immer als ein unvermeidlicher und sinnvoller Reinigungsprozess angesehen werden müsse, aus dem von selbst ein neuer Konjunkturaufstieg hervorgehen wird, sobald die Reinigung und Readjustierung beendet und die verloren gegangene Flexibilität der Volks- und Weltwirtschaft wiederhergestellt ist. Jeder Versuch, diesen Readjustierungsprozess aufzuhalten oder abzukürzen, wird daher von ihnen aufs strengste verurteilt. Er ist in ihren Augen nur geeignet, nach kurzer trügerischer Besserung einen um so schlimmeren Rückfall herbeizuführen. Sie können nicht leugnen, dass diese Krise durch einen gewaltigen Kontraktionsprozess von sehr zusammengesetzter Natur charakterisiert ist, und sind wohl auch widerstrebend bereit, diesem Prozess die Bezeichnung "Deflation" zuzugestehen, aber diese "Deflation" ist nach ihrer Meinung nicht etwa eine selbständige Krankheitserscheinung wie die Inflation, sondern die unvermeidliche Form, in der sich der Anpassungs- und Reinigungsprozess vollzieht. Die Konjunkturpolitik, die sie empfehlen, ist eine rein passive. Ihr Programm ist: Anpassung, Senkung, Einschränkung, Fallenlassen.

Die *zweite Gruppe* bilden diejenigen, die sich auf die Meinung festgelegt haben, dass die gegenwärtige Weltkrise einen Totalzusammenbruch unseres Wirtschaftssystems bedeutet, und daraus den Schluss ziehen, dass jede Hoffnung, sie im Rahmen und mit den Methoden dieses Wirtschaftssystems zu überwinden, vergeblich ist. Für sie ist jede Art von Konjunkturpolitik in dem bescheidenen Sinne einer sich im Rahmen unseres Wirtschaftssystems bewegenden Politik, eine Politik ohne historische Perspektiven, die mit Massstäben arbeitet, über die diese Krise weit hinausgewachsen ist. Sie werden also, unbekümmert um die damit einhergehende ungeheure Verschärfung der Krise, das Heil in einem neuen Wirtschaftssystem suchen. Kommunisten, Sozialisten und konservative Antikapitalisten finden sich hier einträchtig beieinander.

Diese beiden Gruppen repräsentieren zwei extreme Richtungen, zwischen denen jene *dritte Gruppe* liegt, der ich mich selbst zurechne, weil mir für die Ueberlegenheit ihrer Argumente überwältigende Gründe zu sprechen scheinen. Wir halten uns in kühler Distanz zu neurotischen Untergangstheorien aller Art, wie sie uns in der zweiten Gruppe entgegentreten. Die dort vertretene Behauptung, dass sich in der gegenwärtigen Krise der Zusammenbruch unseres Wirtschafts- und Sozialsystems vollzieht, ist Ausdruck einer weitverbreiteten und auch begreiflichen Stimmung, wie sie allen Krisenzeiten mehr oder weniger eigentümlich ist, aber selbst für eine Wahrscheinlichkeit dieser Art fehlt jeder Beweis. Wir wollen nichts zu schaffen haben mit der Behauptung vom Ende des Kapitalismus und der Weltwirtschaft. Wir wissen, dass unser Wirtschafts- und unser Sozialsystem in grösster Gefahr schweben, aber gerade weil wir es wissen, lehnen wir ein passives Geschehenlassen von der Art, wie es die Vertreter der ersten Gruppe empfehlen, ebenso ab wie das revolutionäre Gerede der zweiten Gruppe. Unsere Diagnose der Krise lautet im grossen und ganzen so: Die Krise war in ihrer Grundanlage und in ihrem ersten Stadium eine konjunkturelle Krise, d.h. die unvermeidliche Reaktion auf die voraufgehende Periode der Kreditexpansion und der Investitionshäufung in aller Welt. Man hätte daher erwarten dürfen, dass auf eine sehr schmerzhafte Liquidationsperiode nach spätestens einem Jahre ein neues Gleichgewicht der Wirtschaft sich eingestellt hätte. Dazu ist es aber bekanntlich nicht gekommen, vielmehr haben sich mehrere Umstände verschworen, um aus dieser Krise, die wir als die *primäre* bezeichnen können, eine *sekundäre* entstehen zu lassen, die in einem verhängnisvollen circulus vitiosus —einem wahren circulus vitiosissimus — die Erreichung eines neuen wirtschaftlichen Gleichgewichts immer weiter hinausschob und die Krise aus sich selbst heraus immer neue Nahrung finden liess. Diese sekundäre, degenerierte Krise ist es, mit der wir es wahrscheinlich schon seit dem Jahre 1931 zu tun haben, und sie ist es, der unsere Analyse zu gelten hat.

3

Um sich den Charakter der sekundären Krise klarzumachen, mag man sie mit einer krebsartigen Wucherung vergleichen, die aus einem gutartigen, den Körper von Giften befreienden Geschwür entstanden ist. Der Reinigungsprozess, den die primäre Krise darstellt, hat nun seinerseits einen *Prozess kumulativen Niedergangs* in Bewegung gesetzt, in dem sich die Bedingungen wirtschaftlichen Ungleichgewichts fortgesetzt aufs neue reproduzieren. Will man zur Charakterisierung der Krise das mit Vorsicht zu verwendende Wort "Deflation" benutzen, so kann man sagen, dass die mit der primären Krise verbundene Deflation in der Tat die unvermeidliche Form ist, in der sich der Reinigungs- und Anpassungsprozess vollzieht, so dass es nur der Verlängerung und schliesslichen Verschärfung der Krise dienen würde, wenn man in diesem Stadium versuchen würde, die Deflation durch Gegenmassnahmen aufzuheben. Die Erfahrungen, die man in dieser Richtung in den Vereinigten Staaten im Jahre 1930 hat sammeln können, sind dafür ein hinlänglicher Beweis. Bis hierher sind die Vertreter der ersten Gruppe vollkommen im Recht. Die mit der *sekundären* Krise verbundene Deflation ist jedoch von ganz anderer Art. Ihr Existenzgrund liegt nicht mehr in den unhaltbaren Verhältnissen, wie sie durch die Hochkonjunktur geschaffen wurden, sondern in einem Zusammenhang, der erst durch die primäre Krise und in ihrem Verlaufe (unter Hinzutritt mehr oder weniger zufälliger Umstände) geschaffen wurde. Auch diese sekundäre, "induzierte" Deflation hat nichts gemein mit jener Art von Deflation, wie sie im Verlaufe der Währungsgeschichte mehrfach, insbesondere in einer Reihe von Staaten nach dem Weltkriege, als bewusster Akt der Währungspolitik zur Hebung der Goldparität und der inneren Kaufkraft einer Währung durchgeführt worden ist. Sie ist der Inflation, in der die Hochkonjunktur ihren monetären Ausdruck findet, dadurch verwandt, dass sie mehr auf passivem Geschehenlassen als auf aktivem Eingreifen beruht, und insofern als "autogen" zu charakterisieren. Während die primäre Deflation als unvermeidliche Folge der konjunkturellen Inflation unter allen Umständen ihren Lauf nehmen muss, sind wir in unserem Handeln gegenüber der sekundären Deflation ebenso frei wie gegenüber der konjunkturellen Inflation. Die konjunkturelle Inflation wie die primäre Deflation bilden in ihrer Abfolge sozusagen eine Einheit, auf die das alte Rechtssprichwort anzuwenden ist: "Wer den süssen Tropfen geniesst, muss auch den bitteren schlucken." Mit der sekundären Deflation beginnt jedoch ein neuer selbständiger Prozess. Es ist ein "bitterer Tropfen," den zu schlucken wir nicht mehr verpflichtet sind. Wenn die konjunkturelle Inflation und die sekundäre Deflation einander darin gleichen, dass sie autogen, d.h. der monetäre Ausdruck eines eigentümlichen Verlaufs des volkswirtschaftlichen Gesamtprozesses sind und uns die Freiheit des Handelns lassen, so ist diese Parallelität jedoch keineswegs eine vollkommene. Während nämlich die konjunkturelle Inflation eine bestimmte sozialökonomische Funktion hat, da sie die wirtschaftliche Entwicklung zeitlich so sehr komprimiert, dass man sie trotz der folgenden deflatorischen Reaktion von einem bestimmten wirtschaftspolitischen Standpunkte aus positiv bewerten kann, ist die sekundäre Deflation ohne jeden Sinn und ohne jede Funktion, es sei denn vom Standpunkte der Führer radikaler Parteien oder von Asketen und Puritanern, die die Not der Krise für sittlich heilsam halten. Ist es zweifelhaft, ob oder doch zum mindesten bis zu welchem Grade wir im Falle der konjunkturellen Inflation von der Freiheit unseres Handelns Gebrauch machen sollen, so sollten wir im Falle der sekundären Deflation keinen Augenblick darüber im Zweifel sein, dass sie mit allen Mitteln zu bekämpfen ist.

Es ist nun von grosser Wichtigkeit, sich klarzumachen, dass diese *sekundäre Deflation* eine *sehr komplizierte Struktur* besitzt, deren gewaltsame Vereinfachung zu schiefen Vorstellungen von dem Ziele der jetzt angezeigten Konjunkturpolitik führt. Hier zeigt sich, dass diejenigen im Recht sind, die den Ausdruck "Deflation" zur Kennzeichnung der sekundären Krise nur mit Vorsicht verwenden, und zugleich sehen wir hier eine Hauptquelle der Missverständnisse, die die Vertreter der ersten und der dritten Gruppe voneinander trennen. Dass unter der sekundären Deflation nicht eine Politik der bewussten Geldwertsteigerung zu verstehen ist, wurde bereits festgestellt. Niemand kann behaupten, dass sie von irgendeiner Stelle bewusst in Szene gesetzt worden ist, so sehr sie auch durch Massnahmen einer schlechtberatenen Krisenpolitik gesteigert wurde. Ebenso falsch wäre es aber, bei der sekundären Deflation nur oder auch in der Hauptsache an die Entwicklung des "allgemeinen Preisniveaus" zu denken. Es ist selbstverständlich, dass das, was wir im Auge haben, wenn wir von sekundärer Deflation sprechen, von einer drastischen Preissenkung begleitet ist. Aber diese Preissenkung ist nur ein Ausschnitt aus einem allgemeineren Prozess und nicht einmal der wichtigste,* und das Ausmass dieses Prozesses erschöpft sich keineswegs in dem Umfang der allgemeinen Preissenkung. In diesem Prozess fügen sich allgemeine Nachfrageschrumpfung, Einkommens- und Produktionsschrumpfung zu einem Gesamtbilde der volkswirtschaftlichen Kontraktion zusammen, in dem die Preissenkung nur insoweit zum Ausdruck kommt, wie die Produktionsschrumpfung hinter der Nachfrageschrumpfung herhinkt. Anders ausgedrückt: die Anpassung der Wirtschaft in der Krise vollzieht sich nicht bloss über die Preise, sondern ebenso über die Mengen. Tatsächlich ist ja der Prozess der wirtschaftlichen Kontraktion in erster Linie ein Prozess der Kontraktion der Produktionsmengen und nur insoweit, als die Anpassung über die Produktionsmenge nur unvollkommen erfolgt, auch ein Prozess der Preiskontraktion. So beispiellos auch die Preisstürze auf einzelnen Gebieten in den letzten Jahren gewesen sind, so ist doch zweifellos die allgemeine Preisbewegung der letzten Jahre nur ein schwacher Abglanz des allgemeinen Kontraktionsprozesses, wie er in den Ziffern der Produktions-, Einkommens- und Arbeitslosenstatistik zum Ausdruck kommt.

Ebenso unvollkommen wie in der Preisentwicklung kommt die sekundäre Deflation auch in der *Entwicklung der Geldmenge* zum Ausdruck. Mit dieser Feststellung betreten wir ein Gebiet, auf dem es sehr schwer ist, sich ohne weitausholende geldtheoretische Begriffsklärung verständlich zu machen. So müssen wir uns an dieser Stelle mit der Andeutung begnügen, dass uns die Scheidung der Begriffe "Geldmenge" und "Umlaufsgeschwindigkeit des Geldes" stark revisionsbedürftig erscheint, da sie für die Hauptmasse des modernen Geldes, das Kreditgeld, unanwendbar ist und verwirrenden Vorstellungen Vorschub leistet. Es hat zwar einen sehr guten Sinn, das "ruhende" Bargeld von dem "umlaufenden" zu unterscheiden, aber es gibt kein Kreditgeld, das nicht "umlaufend" wäre, d.h. es gibt kein Kreditgeld, ausser demjenigen, das durch die Bewegungen auf den Bankkonten zur Entstehung kommt. Jede andere Vorstellung beruht auf einem mangelnden Vertändnis der Funktionen des modernen Banksystems. Diese wenigen Bemerkungen machen begreiflich, dass es ausserordentlich schwierig ist, für die "Deflation," von der hier die Rede ist, den zutreffenden monetären Ausdruck zu finden. Die Entwicklung der *Bar*geldmenge kann ihn jedenfalls nicht liefern, erstens, weil sie nur den Unterbau des modernen Geldsystems darstellt, und zweitens, weil der Bargeldbedarf zwar durch den ausserordentlich verringertem Umsatzbedarf vermindert, dafür aber auf der anderen Seite durch Bargeldthesaurierung und durch das Streben der Banken nach erhöhter Liquidität vermehrt wird. Das begreifliche Ergebnis ist also, dass die verringerte Bargeldmenge auch hier nur wieder einen sehr schwachen Abglanz des volkswirtschaftlichen Kontraktionsprozesses liefert. Ein weiteres Ergebnis ist, dass die Bargeldmenge in dieser Zeit einen grösseren Prozentsatz der gesamten Geldmasse eines Landes als vorher ausmacht, so dass sich also das Verhältnis zwischen Bargeld und Kreditgeld zugunsten des Bargeldes verschoben hat. Daraus folgt schon an dieser Stelle, dass die Ueberwindung der Deflation sich weit mehr durch eine Verschiebung jenes Verhältnisses zugunsten des Kreditgeldes als durch eine Vermehrung des Bargeldes vollziehen wird, womit einigen phantasievollen Vorstellungen über die Redeflationspolitik ein Riegel vorgeschoben wird. Im übrigen bleibt uns zur Kennzeichnung der sekundären Deflation nichts anderes übrig als festzustellen, dass sich der Umfang der Deflation genau nach dem Umfang bemisst, in dem sich die Gesamtnachfrage der Volkswirtschaft für eine bestimmte Zeiteinheit kontrahiert hat, wobei der Hauptanteil an dieser Kontraktion auf die durch Kreditgeld geltendgemachte Nachfrage entfällt. Die äusseren Symptome hierfür sind der Rückgang der umlaufenden Bargeldmenge (in dem gekennzeichneten geringen Umfange), die "Kontenstarre" bei den Banken, die Verkürzung der Bankbilanzen, die Verringerung der Clearinghausumsätze und sonstige Symptome der monetär-kreditären Kontraktion. Diese *Nachfragekontraktion* steht durchaus im Vordergrunde; sie ist die eigentliche causa movens der sekundären Deflation. Durch Wechselwirkung mit ihr verbunden ist die *Einkommenskontraktion*, die insoweit, als sie nicht nur durch einen Rückgang in der Beschäftigung der Produktionsfaktoren, sondern auch durch eine Senkung der Preise der Produktionsfaktoren verursacht ist, zugleich eine *Kostenkontraktion* ist. Der Rückgang in der Beschäftigung der Produktionsfaktoren lässt die sekundäre Deflation schliesslich als eine allgemeine *Produktionskontraktion* erscheinen. Der Mechanismus der sekundären Deflation bewegt sich nun dadurch, dass ein doppelter "lag" besteht und sich so lange fortgesetzt aufs neue reproduziert, als nicht die causa movens der Deflation beseitigt ist: erstens ist es bei Fortbestehen der causa movens unvermeidlich, dass die Produktionskontraktion hinter der Preiskontraktion herhinkt, da sie durch die Einkommenskontraktion fortgesetzt neue Nachfrage vom Markte vertreibt, und zweitens hat die Kostenkontraktion bei Fortbestehen der causa movens gleichfalls die Tendenz, hinter der Preiskontraktion herzuhinken. Im ersten Falle reproduziert sich das Missverhältnis zwischen Angebot und Nachfrage, im zweiten Falle das Missverhältnis zwischen Kosten und Preisen, also die Unrentabilität der Unternehmungen, auf immer tieferem Niveau.

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* Dass die sekundäre Krise (Deflation) heute gerade in der angelsächsischen Literatur fortgesetzt mit dem Phänomen der Preissenkung identifiziert wird, ist das beharrliche Fortwirken einer Tradition, die vor allem durch die Arbeiten von Hayek erfolgreich bekämpft worden ist. Wir kommen darauf weiter unten nochmals zurück.

4

Welches ist nun jene causa movens der sekundären Deflation?

Als solche wurde oben die allgemeine Nachfragekontraktion bezeichnet. Indessen erhalten wir dadurch noch keinen Aufschluss darüber, wie diese Nachfragekontraktion zustande kommt und, anstatt sich automatisch aufzuheben, sich kumulativ verschärft. Es muss ein verderblicher circulus vitiosus sinnloser Wirtschaftsschrumpfung bestehen, der die Volkswirtschaft immer wieder vom Gleichgewicht fortführt. Es muss fortgesetzt Nachfrage auf den Gütermärkten ausfallen und dieser Nachfrageausfall muss die Tendenz haben, seinerseits zu neuem Nachfrageausfall zu führen. Das, was hier vor sich geht, kann man nun auf die kurze Formel bringen, dass *Einkommensbildung und Einkommensverwendung weit auseinanderklaffen* und damit eine Grundvoraussetzung wirtschaftlichen Gleichgewichts immer wieder vereitelt wird. Mit anderen Worten: der Nachfrageausfall entsteht dadurch, dass Geldbeträge, die an die Einzelwirtschaften fliessen, überhaupt nicht oder nur teilweise oder nur mit grosser Verzögerung als Güternachfrage wieder an den Markt gelangen. Wenn wir den Nichtkonsum von Geldbeträgen als "Sparen" bezeichnen, so ist unsere Formel offenbar identisch mit der bekannten Keynes'schen Formel, dass die Sparrate die Investitionsrate übersteigt. Zugleich wird deutlich, dass eine allgemeine Nachfragekontraktion immer identisch sein muss mit "Sparen" ohne entsprechendes "Investieren," wie umgekehrt eine allgemeine Nachfrageexpansion mit "Investieren" ohne entsprechendes "Sparen."

Um uns die Diskrepanz zwischen Einkommensbildung und

Einkommensverwendung klarzumachen, haben wir vor allem an die Unternehmer zu denken, die sich liquide halten, statt die verdienten Abschreibungsbeträge zu Ersatzinvestitionen zu verwenden oder gar Neuinvestitionen vorzunehmen, und an die Haushaltungen, die Geldbeträge aufstapeln oder in Form von umsatzlosen Bankguthaben stehenlassen. In allen diesen Fällen wird in der Volkswirtschaft in grossem Massstabe auf den Ankauf von Verbrauchsgütern verzichtet, ohne dass diesen "Ersparnissen" eine Investition in Kapitalgütern gegenübersteht. Der Versuch der Produzenten, das durch den Nachfrageausfall entstehende Ueberangebot durch Preis- und Kostensenkung und durch Produktionseinschränkung zum Verschwinden zu bringen, führt aber so lange zu einem erneuten Nachfrageausfall, als nicht durch neue Investitionen oder durch Rückgang der "Ersparnisse" das Auseinanderklaffen von Einkommensbildung und Einkommensverwendung beseitigt wird. Solange das nicht der Fall ist, reisst ein Wirbel der Wechselwirkung die Volkswirtschaft in immer tiefere Abgründe hinab, denn die Schrumpfung der Wirtschaft schafft immer ungünstigere Voraussetzungen für eine Steigerung der Investitionen. Einmal deshalb, weil die jetzt ausbrechende allgemeine Vertrauenskrise die Unternehmer noch investitionsunlustiger als vorher macht, und zweitens weil diese selbe Vertrauenskrise nunmehr zu den allerschwersten Störungen des Geld- und Kreditsystems führt, worüber sogleich noch mehr zu sagen sein wird.

Jedermann weiss, wie es zu einer solchen Degenerierung der jetzigen Weltkrise gekommen ist. Im Vordergrunde steht hier der Umstand, dass die primäre Krise in einem Augenblick ausbrach, in dem die Welt bereits bis zum Rande mit unerhörten wirtschaftlichen und politischen Spannungen gefüllt war. Sie traf ferner zusammen mit einer Agrar-und Rohstoffkrise von noch nicht dagewesener Schärfe und Ausdehnung, mit einer ungeheuren internationalen Kurzverschuldung, mit den politisch-wirtschaftlichen Störungen und mit einem Uebermass von Staatseingriffen und Monopolbildungen aller Art, die den Wirtschaftsprozess immer unelastischer gemacht hatten. Schliesslich kam es im Verlaufe dieser Entwicklung zur internationalen Kreditkrise des Jahres 1931, die bei hinreichender Einsicht und gutem Willen aller Beteiligten sicherlich hätte vermieden werden können. Die furchtbare Wirkung auf den weiteren Verlauf der allgemeinen Krise war nun, dass in weitesten Teilen der Welt eine fast völlige Lähmung des Banksystems eintrat, die seine Bereitschaft zur Finanzierung von Investitionen auf ein Minimum herabdrückte, dass eine Stauung und

Hortung von Kaufmitteln in riesigem Umfange eintrat und dass die Verschärfung der allgemeinen Vertrauenskrise im Verein mit dem weiteren jähen Sinken der Preise und im Verein mit der nun erst einsetzenden Zerrüttung der Weltwirtschaft bei den Unternehmern jeden Gedanken an Neuinvestitionen, ja sogar an notwendige Ersatzbeschaffungen auslöschte. Ein Keil trieb dabei den anderen: Wirtschaftsschrumpfung und Hysterie auf allen Gebieten verschärften sich gegenseitig. Von besonderer Bedeutung war dabei die Verwüstung der *Effektenmärkte*. Um diesen ausserordentlich wichtigen, aber meist unterschätzten Faktor recht würdigen zu können, hat man sich folgendes klarzumachen. Wir hatten gesehen, dass das Auseinanderklaffen von Einkommensbildung und Einkommensverwendung nur durch Steigerung der Investitionen oder durch Rückgang der "Ersparnisse" beseitigt werden kann. Soll die Wiederherstellung des Gleichgewichts durch Steigerung der Investitionen erfolgen, so sind dafür zwei Voraussetzungen notwendig. Erstens muss auf Seiten des Banksystems die Bereitschaft zur Gewährung von Krediten bestehen. Diese Bereitschaft ist heute in den wirtschaftlich massgebenden Länden gesichert, aber die lange Zeit vergeblichen Versuche in den Vereinigten Staaten, zusätzliche Kredite in die Volkswirtschaft zu pumpen, haben bekanntlich erwiesen, dass die Kreditbereitschaft des Banksystems in dieser Situation nicht mehr genügt. Es hat sich nämlich die Vermutung bestätigt, dass auch eine noch so starke Herabsetzung des Zinses für Bankkredite in dieser Zeit allgemeiner Investitionsunlust nicht mehr genügt, um die Unternehmer zu neuen Investitionen zu veranlassen, so dass insoweit eine Kreditausweitung nicht die angestrebte Ausdehnung der Güternachfrage, sondern nur eine Erhöhung der Liquidität herbeiführt. Die allgemeine Investitionsunlust erklärt sich nun nicht nur aus der Vertrauenskrise, aus der Preisentwicklung und aus der Uebersättigung des Investitionsbedarfs in der letzten Hochkonjunktur, sondern auch daraus, dass neue Investitionen einstweilen nur aus kurzfristigen Bankkrediten finanziert werden können, dass aber die Unternehmer zu dieser Art der Finanzierung so lange nicht bereit sein werden, als nicht die Erholung des Effektenmarktes die Aussicht auf baldige Konsolidierung der kurzfristigen Investitionskredite eröffnet. Darum sind feste Effektenbörsen eine notwendige Voraussetzung des allgemeinen Konjunkturaufschwungs, und darum ist jede Massnahme und jeder Vorgang, die geeignet sind, das Publikum von Effektenkäufen abzuschrecken, eine neue Blockierung des Aufschwungs. Umgekehrt ist es angesichts der furchtbaren Verwüstungen, die die Krise auf den Effektenmärkten angerichtet hat, vernünftig und zweckmässig, dass, wie es in den Vereinigten Staaten geschehen ist, Auffangorganisationen geschaffen werden, die das Ueberangebot an Effekten vom Markte nehmen.* Das gleiche gilt von anderen organisatorischen Massnahmen, mit denen das havarierte Banksystem eines Landes notdürftig wiederausgeflickt wird, um es nach den Stürmen der Kreditkrise für eine Kreditausweitung wieder instandzusetzen.

Damit sind die hauptsächlichen Glieder jenes verhängnisvollen circulus vitiosus geschildert, als den sich die sekundäre Krise darstellt, und es bleibt nur noch die Frage zu prüfen, ob dieser circulus vitiosus überhaupt ein Ende finden kann, ehe die ganze Bevölkerung schliesslich bei riesenhaft sich auftürmenden Bergen unausgenutzter Produktionsmittel verhungert. Wir haben es erlebt, dass im Verlaufe dieses Prozesses die Produktion auf 70,60 ja sogar auf 50 % des ursprünglichen Umfanges zusammenschrumpfen kann, und hätten nur noch zu fragen, ob es irgendeinen Mechanismus gibt, der sie hindert, auf 10 % oder noch weniger zusammenzuschmelzen. Wenn nun auch diese Welt zweifellos nicht die beste aller denkbaren Welten ist, so ist sie doch noch sinnreich genug eingerichtet, um uns vor einer so monströsen Katastrophe zu bewahren (die eine gewisse Verwandtschaft zu derjenigen Katastrophe haben würde, die uns die moderne Physik für den Fall voraussagt, dass es gelingen würde, ein Heliumatom zu sprengen). Je weiter nämlich die Wirtschaftsschrumpfung fortschreitet, um so näher kommen wir dem Punkt, an dem schliesslich auch dann, wenn keine Steigerung der Investitionsrate stattfindet, durch eine Art von letzter Sicherheitsbremse das Gleichgewicht wiederhergestellt wird, und zwar dadurch, dass die Sparrate auf den Stand der Investitionsrate herabgedrückt wird. Dieser Punkt ist dann erreicht, wenn auf der einen Seite die allgemeine Verarmung zur Aufzehrung von Ersparnissen zwingt und auf der anderen Seite das Budgetdefizit des Staates auf keine Weise mehr durch Ausgabensenkungen oder Steuererhöhungen zu decken ist, ohne eine Revolution hervorzurufen. Dann hat die Krise ihren theoretisch tiefsten Punkt erreicht. Es ist also dafür gesorgt, dass auch die schwerste Krise schliesslich von selbst überwunden wird, wenn das politische und soziale Gehäuse diesen ungeheuren Druck aushält. Auch wenn wir tatenlos die Hände in den Schoss legen und die Deflation ebenso ergeben hinnehmen wie früher die Inflation, führt der Lauf der Dinge schliesslich zu einer Lösung, — nur mit dem Unterschied, dass einige Tausende mehr zum Gasschlauch greifen, einige Tausende mehr in politischen Strassenkämpfen ihr Leben verlieren und die allgemeine Verarmung und die Hoffnungslosigkeit der Arbeitslosen im Verein mit der allgemeinen Hysterie der Massen die Fundamente des Staates und der Gesellschaft erschüttern. Aber die Frage ist wohl berechtigt, warum man so lange warten soll, um so berechtigter, als jener tiefste Punkt der Krise erst nach schwersten innerpolitischen Kämpfen erreicht wird, in denen die finanzpolitischen Puritaner mit den Kräften ringen, die sich gegen diesen Puritanismus stemmen. Wenn nicht irgendwelche äusseren Ereignisse eintreten, die schon früher eine Krisenwende herbeiführen (etwa ein sensationelles Ereignis der Politik, das mit einem Schlage die allgemeine Investitionsunlust aufhebt), so müssen die Puritaner in diesem Kampfe schliesslich unterliegen, und es besteht dann eine gewisse Wahrscheinlichkeit dafür, dass eine politisch besonders tatkräftige und extreme Richtung irgendwelcher Art triumphieren wird. Die relative Stabilisierung der Weltkrise im gegenwärtigen Zeitpunkt hängt zweifellos damit zusammen, dass wir jetzt in aller Welt um den Punkt herumpendeln, wo die Aufrechterhaltung des Budgetgleichgewichts sich mehr und mehr als eine Unmöglichkeit erweist und auch dort wo eine Expansionspolitik offiziell noch verpönt wird, der Zwang der Verhältnisse dazu treibt.

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* Die beispiellose Zerrüttung der Effektenmärkte in den Vereinigten Staaten seit 1929, die hier nicht wie in Europa durch die politische Komponente erklärt werden kann, dürfte in engstem Zusammenhange damit stehen, dass dort in der letzten Hochkonjunktur das Sparerpublikum statt der Effektenanlage in ungewöhnlichem Umfange die Anlage in langfristigen Bankguthaben vorgezogen hat und dass die Banken dafür ihrerseits Effekteninvestierungen in riesigem Umfange vorgenommen haben. (Cf. das Völkerbundsmemorandum *Memorandum on Commercial Banks*, Genf 1931.) In der Krise sahen sich dann die Banken gezwungen, ihre Effektenbestände rücksichtslos zu verwerten.

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Wir sind uns bewusst, welchen Anstoss eine solche kühne Analyse heute noch in weitesten Fachkreisen erregt, um so mehr, wenn sie von jemandem kommt, der sich in der Verurteilung jeder Form des Inflationismus und des Interventionismus von niemandem übertreffen lassen möchte. Daher erscheint es uns besonders wichtig, Brücken der Verständigung zu schlagen und allen nur möglichen Einwänden gerecht zu werden. Auf alle diese Einwände muss zweierlei vorweg bemerkt werden. Erstens kann niemand bestreiten, dass nach allen

Erfahrungen und nach aller Ueberlegung keine andere Form der Ueberwindung der Krise denkbar ist als die hier beschriebene Form der Reexpansion. Ebensowenig kann zweitens jemand bestreiten, dass der dargelegte Mechanismus des kumulativen Niederganges oder der sekundären Deflation *möglich* ist und dass keine Volkswirtschaft, mag sie sonst so harmonisch und elastisch sein wie sie will, darauf anders reagieren kann als durch Massenarbeitslosigkeit und riesige Produktionsschrumpfung. Es ist aber ferner schwer vorstellbar, wie man bestreiten kann, dass die hier versuchte Interpretation der degenerierten Krise zum mindesten die *Wahrscheinlichkeit* für sich hat. Es will uns also scheinen, als läge die Beweislast dafür, dass die Interpretation unrichtig ist, auf der anderen Seite. Man wird diesen Beweis damit versuchen, dass man sagt, der ganze Begriff einer sekundären Krise entbehre jeder Grundlage, da die Degenerierung der Krise nur auf der fortgesetzten Hinauszögerung der von Anfang an notwendigen Reinigung und Auflockerung beruhe. Darauf kann an dieser Stelle nur noch kurz erwidert werden, und zwar in erster Linie mit dem sehr nachdrücklichen Hinweis darauf, dass der Umfang des notwendigen Reinigungs- und Auflockerungsprozesses nicht von vorherein absolut feststeht, sondern sehr relativ ist. Es gibt kaum mehr eine Kapitalinvestition, die sich nicht bei einer Produktionskontraktion auf 50 % als eine "Fehlinvestition" erweisen würde. Es gibt keine Löhne, die nicht zu hoch sein würden, und keine Bank, die nicht gefährdet sein würde, sobald der Kontraktionsprozess der Volkswirtschaft einen bestimmten Punkt erreicht hat. Es gehört gerade zum circulus vitiosus der sekundären Krise, dass sie immer neue Anpassungsnotwendigkeiten schafft, dass aber die auf immer tieferem Niveau wiederholten Anpassungs- und Reinigungsmassnahmen den Kontraktionsprozess nur noch verschärfen, solange die Diskrepanz zwischen Einkommensbildung und Einkommensverwendung nicht behoben ist, und es ist nicht einzusehen, wie die Anpassungs- und Reinigungsmassnahmen geeignet sein können, diese Diskrepanz zu beheben. Eine Auflockerung des unelastisch gewordenen Preis- und Kostengefüges ist ein Gebot, dessen Dringlichkeit gar nicht überschätzt werden kann, aber erstens ist es unbestreitbar, dass sie im Verlaufe der letzten Krisenjahre schon ganz erhebliche Fortschritte gemacht hat, und zweitens will es die tragische Verstrickung der sekundären Krise, dass die Auflockerung und Anpassung, allein für sich genommen, die Krise nur noch weiter verschärft. Ja, auf dem Gebiete der auswärtigen Handelspolitik ist es gerade die durch die Krise hervorgerufene Hysterie und wirtschaftliche

Beengung, die einen wahren Paroxysmus von Staatseingriffen ins Leben gerufen hat und einstweilen jeden Versuch zur Wiederaufrichtung der Weltwirtschaft zur Aussichtslosigkeit verurteilt. Als ein Ausweg aus dem Dilemma erscheint nur eine wohlabgewogene Verbindung der Auflockerungspolitik mit einer Politik der Reexpansion.* Dabei ist das grösste Gewicht auf die Feststellung zu legen, dass das Ziel einer solchen Politik der Reexpansion gar nicht missverständlicher formuliert werden kann als durch die Forderung, dass das allgemeine Preisniveau gehoben werden müsse, — eine Forderung, die, wie schon an einer früheren Stelle dieses Aufsatzes hervorgehoben wurde, aus einer falschen Interpretation der sekundären Deflation hervorgegangen ist. Nicht die Bekämpfung der Preiskontraktion ist das Wesentliche, sondern die Bekämpfung der Nachfrage-, Produktions- und damit schliesslich auch der Einkommenskontraktion. Die Aufwärtsbewegung der Preise wird dann schliesslich in demselben modifizierten Umfange erfolgen, in dem auch die Abwärtsbewegung der Preise den allgemeinen Kontraktionsprozess begleitet und reflektiert hat.

In der Interpretation der Krise und in der Konstruktion von Massnahmen zu ihrer Ueberwindung ist eine solche Konfusion der Meinungen und ein solches Chassé croisé der nationalökonomischen Richtungen eingetreten, dass dieser Aufsatz mit einer nochmaligen deutlichen Abgrenzung des Standpunktes, den der Verfasser einnimmt, abgeschlossen werden muss. Dieser Stankpunkt ist erstens durch seine unwandelbare Ueberzeugung bestimmt, dass die Aufrechterhaltung und Befestigung unseres auf der individuellen Verantwortung beruhenden Wirtschaftssystems und der sozialphilosophischen Prinzipien, die es tragen, die Kardinalvoraussetzung für die Weiterexistenz der heutigen Millionenreiche und für die Aufrechterhaltung der gesamten abendländischen Zivilisation ist. Weder in der Interpretation der Krise noch in der Formulierung von Vorschlägen zu ihrer Bekämpfung ist er zu den geringsten Konzessionen an die heute hoch im Kurse stehende antikapitalistische Romantik bereit. Zweitens aber fühlt er sich nach wie vor denen in geistiger Gemeinschaft verbunden, die Gegner der Entartung unseres Wirtschaftssystems durch Inflationismus und Interventionismus sind, und daher auch nach wie vor mit ihnen einig in der Interpretation der primären Krise. Das, was ihn im gegenwärtigen Augenblick von einigen aus diesem Kreise trennt — aber auch nur in diesem Augenblick und in diesem Punkte —, ist drittens die Ueberzeugung, dass wir unser Wirtschafts- und Sozialsystem in die grösste Gefahr bringen, wenn wir die in ihm ruhende ungeheure Kraft der Reichtumsschaffung verrotten lassen, indem wir uns auf Grund einer falschen Interpretation der sekundären Krise gegen eine Politik der Reexpansion stemmen.

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* Inwieweit bei der im Text kritisierten Erwägung noch der häufige Fehler eine Rolle spielt, dass Ursachen einer Gleichgewichtsstörung mit Ursachen einer volkswirtschaftlichen Verarmung verwechselt werden, ist eine eingehender Spezialuntersuchung würdige Frage.

THE CO-ORDINATION OF PUBLIC REVENUES

EDWIN R. A. SELIGMAN, *Columbia University, New York*

ONE of the chief fiscal problems in the United States at present is that of lightening the burden on the farmer and the landowner in general. The United States still relies very largely for the support of the states and the localities on the general property tax, which in practice has become to an overwhelming extent a tax on real estate—that is, on lands and houses. It is in this sense that the American revenues are derived to such a great degree from direct taxes: the income tax for federal purposes; the land tax for state and local purposes. In the recent economic depression, where the general level of prices has fallen so enormously, the burden of this real estate tax which has of recent years grown to be not only relatively but absolutely larger, has become almost unendurable. Throughout the length and breadth of the land there is now a universal outcry for a reduction of taxation, which means practically a lessening of the real estate tax. While the need of some relief is universally acknowledged, it is not always clearly recognized that, apart from the reduction of expenditures, a lowering of the real estate tax can be secured only by an increase of other existing taxes or by new additions to the tax system as a whole. As soon, however, as the states seek to augment their tax revenues, they are at once brought into conflict with a similar attempt on the part of the national government. The problem of lightening the burden of the taxpayer resolves itself, therefore, into some form of adjustment between federal and state revenue systems. Thus the American union is finally, but for different reasons, confronted by the same problem which has become so acute in many another federal state, and which in Germany has become familiar under the name of *Finanzausgleich.*

In the early stages of our history this problem did not exist because of the principle of separation. This principle was to a certain extent embedded in the Constitution through the provisions which reserve customs duties to the national government and which, through the direct tax clause, virtually reserve the general property tax to the states. Up to the Civil War this system worked satisfactorily. With the exception of the war with England and the Mexican War, the federal tax revenue during the nineteenth century was derived from import duties and the commonwealth needs were adequately met by the general property tax.

With the growing necessities, however, on the part of both the nation and the states, this early period was gradually outgrown. Both the union and the states now began to dip into a common reservoir. With the attainment of this stage we reach the period of duplication of revenues. At first scarcely perceptible, this duplication became more and more pronounced in proportion as it became necessary to resort to inheritance taxes, to corporation taxes, to income taxes, and to various forms of indirect taxation. The competition which was thus engendered resulted not only in a waste of effort but in an accumulation of more or less unrelated and unconsidered burdens upon the individual, as well as in a growing embarrassment to the taxing authorities.

The present situation in the United States accordingly is a combination of the two systems of separation and duplication, each principle being applicable to a part of the field. It is because of the increasing difficulties of this situation that here, as in all other federal governments, a third method has now become necessary. This is due not so much to the failure of separation and duplication as to the need of restricting their operation to ever narrower limits.

It is, for instance, certain that the original separation of revenues will maintain itself to the extent that import duties will accrue only to the federal government and that the property tax, on real estate at least, will continue to be restricted to the states. With the advent of new forms of revenue, however, these separate taxes will form an ever dwindling proportion of the entire revenue. In the same way it will be difficult, even if it were desirable, to abolish every form of competition between state and nation. Such forms of duplication, however, even if they continue to exist, ought for obvious reasons to constitute a decreasing and not an increasing part of the whole.

It is clear, then, that while both separation and duplication of revenues may continue, in part at least, the field is open for an application of some form of mutual adjustment or adaptation which is best described as the integration of state and federal revenues. This integration implies some form of relation of the whole to the parts. Like so many other problems, philosophical as well as political, it calls for the creation of unity in multiplicity.

How, then, can fiscal integration be obtained? In order to prepare the way for a consideration of this problem it is important to emphasize four fiscal principles which are of the first importance from the point of view of the taxing authority, namely, suitability, adequacy, simplicity, and elasticity.

The principle of suitability is of primary significance. The fitness or appropriateness of a tax depends, so far as the taxing authority is concerned, upon the economic basis of the tax and the character of the administration. Other things being equal, certain tax authorities are less fitted to achieve success than others. Take as an example a purely local income tax which is exceedingly difficult to administer in any village or town because of the virtual impossibility of localizing an individual's entire income, from whatever source derived. Take again an inheritance tax, which is plainly unsuitable for local purposes on the score of great variation in return. In a small town the death of a single rich individual may cause an immense oscillation in the local revenue. On the other hand, the value of a man's farm is quite adequately appreciated by his fellow-farmers.

While the economic basis of the tax is important, the character of the administration must not be overlooked. There is, of course, no universal rule possible. But technical considerations will often lead to the preference for a particular administrative organization. The balance of efficiency will sometimes swing in one direction, sometimes in the other. If we join the administrative considerations to those of the economic base it is clear that the principle of suitability must not be disregarded.

The second principle is that of adequacy. This is sometimes of commanding importance in both state and local governments. Owing to the provisions of the federal constitution with reference to interstate commerce, it is obvious that certain forms of business taxation, for instance, will fail of complete success when administered by state or local authorities.

The third principle is that of simplicity. Other things being equal, the less complexity that we have in any system of mutual adjustments, the better the system will be. Any integration of public revenues which engenders uncertainty and complexity is to be deprecated. The system may be admirable in other respects, but if it fails here it is apt to create as many new difficulties as it will overcome.

The fourth principle is that of flexibility or elasticity. In the presence of great variations both in public needs and in the social income, it is necessary, in devising any system of mutual adjustments as between state and nation, to provide for a degree of flexibility which will obviate difficulties and embarrassments that are otherwise sure to occur.

In considering any form of integration to replace the systems of separation or duplication, we must therefore be mindful of the four principles of suitability, adequacy, simplicity, and flexibility. Some forms of integration will secure the one objective, some forms another. We must obviously give our preference to that kind of integration which will if possible realize all four objectives.

What, then, should be the character of the fiscal integration? It is clear that we have at the very outset to choose between two alternatives. We can achieve integration through either equality or inequality; in the endeavour to combine unity with multiplicity we may emphasize either the whole or the part. If, however, we over-emphasize either the whole or the parts, we are subordinating the whole to the parts, or the parts to the whole. In other words, integration may take the form of subordination. As opposed to this method, which inevitably involves a certain inequality, we may seek to preserve, as far as possible, the equality between the whole and the part. This form of reciprocal adjustment may be termed co-ordination.

The history of fiscal relations between the whole and the part in every federal government affords abundant examples of the two methods of integration. But it has not always been clearly perceived that each of these methods, namely, subordination and co-ordination, has assumed different forms. Let us attempt to explain these possible variations and to consider the merits of each.

The simplest form of fiscal subordination is to have either the central or the local government supported by the other. We have had examples of both systems. Under the first Constitution of the United States the federal government possessed no independent sources of revenue. The nation had to be supported by grants from the various states under the name of requisitions, so called because the federal government made periodical requisitions upon the states. The failure of this system was largely responsible for the new Constitution with independent revenues for the union.

We find the same system, in part at least, almost a century later in the early years of the new German Empire. While the Imperial Government did indeed possess certain independent sources of revenue, these were by no means adequate, and had to be supplemented by the system of grants from the states known as *Matricular-Beiträge*.

Such a system of central subordination may have been endurable in the period of transition from the theory of state sovereignty, with only limited grants of power to the union. But it was bound to fail in proportion as the central government acquired more vitality and independence.

With the strengthening and growing importance of the central government we gradually find the shoe fitting the other foot. In the system of subventions the grants were now made from the central to the local rather than from the local to the central government.

This system of central subventions first developed in Great Britain. Almost a century ago we find the beginning of the so-called grants-in-aid whereby the central government sought out of its abundant revenues to lighten the burden of the localities. A little later the Canadian Constitution made it possible for the federation to assist the provinces which were still struggling to their feet. Toward the end of the century we observe the movement beginning in various American states, notably in New York, where an attempt was made to ease the burden of the local property tax through state action. At about the same time we have the first extensions of federal aid to the states which, beginning modestly with certain forms of agricultural education, later received a great impetus when applied to improved roads, as well as to other purposes.

Although it was not the original intention, the system of subventions and grants carried with it to a certain extent the possibilities of advice or even of control. While this has been carefully guarded in the United States, it remains true that to a certain extent at least there exists a degree of subordination. It is largely on this score that objection has sometimes been raised by the separate states to the system of federal grants. On the principle, however, that it is not easy to look a gift horse in the mouth, there is slight likelihood of the system disappearing. But even at best the system of federal grants with or without control will cover only a small part of the field. Some other form of integration will have to be found for most of the public revenues.

What must be sought, in other words, is not so much subordination as co-ordination. There are at least four ways in which this can be accomplished.

There may be in the first place a realignment of government functions. Although there is a more or less traditional assignment of functions to the various agencies local, state, and federal, the shifting basis of economic life is gradually bringing about some alteration. This change is especially noticeable as between state and local governments. Recent decades have witnessed a decided drift toward centralization, partly for administrative, partly for economic reasons. We now have, for instance, a conspicuous increase in state hospitals of certain kinds. Again, in the case of roads as well as of schools, which form the chief object of local expenditures, there has been a marked acceptance of general and state-wide standards, as a result of which a continually greater part of the local expenditures for these purposes has been transferred to the state government. There is room for a further development, which will carry with it a diminishing pressure upon the local property tax and an increasing reliance upon the state revenues which are being alimented by other sources. The co-ordination which has been brought about by changes in relative expenditure is just as effective as co-ordination brought about by analogous changes in government revenues.

While this method, however, has a decided future in the relations of state and localities, it is less promising in the relations of state and nation. It is true that there will probably be further progress in the construction of national highways within the states, and it is even possible that there may be some future for certain additional forms of federal education. In the main, however, the outlook for changes of this kind is not promising. So far as state and nation are concerned, we can expect far less help from a realignment of government functions than in the case of states and localities. In the relations of the state and the nation we must look more particularly to revenues rather than to functions or expenditures.

The second method of co-ordination is illustrated by the existing system of credits. This ingenious plan was devised less than a decade ago in order to meet the problem of the death duties. Some of the states were becoming increasingly dependent upon the inheritance tax, while the proceeds of the federal estate tax were not only small in themselves but seemed to be of growing insignificance in the face of the great surplus of other revenues. It was therefore decided that when anyone paid the federal estate tax he should be credited with so much of the tax—at first 20 %, later increased to 80 %—as might be payable to the state. The system of credits has worked so smoothly that the question arises why it is not susceptible of wider extension.

There are, however, several reasons which lead us to doubt the expediency of such a general extension. In the first place it involves a certain amount of compulsion. In order to permit the existing credit, it is necessary that each state should not only levy death duties but possess a system virtually identical with that of the federal government. Some states did not have any death duties and a few were strongly averse to such taxes. Furthermore, many of the states had a different system, such as the inheritance tax or a tax on the shares of the inheritance. These states have now been compelled, partly against their will, to change the system to conform to that of the Federal Government. This consideration points to a weakness in the plan, if generalized. If an attempt were made to apply the credit system to the income tax or to the business tax or to any form of indirect tax, it would require every state to introduce that particular form of taxation. Such a compulsion might be far more unwelcome than was the adoption by the commonwealths of the estate tax. It might be unwelcome, either because that particular form of tax was not needed or because it might be unsuitable under the special conditions. In other words, the system of credits might introduce into the state revenue systems a degree of rigidity which is to be deprecated.

In the third place, the credit system would not lessen the duplication to which attention has been directed above. If it is wasteful to have both a state and a federal inheritance tax, it is still more wasteful to have both a state and federal income tax, or a state and federal business tax. With every extension of the credit system to the field of indirect taxation we should have a continually increasing waste. The higher the costs of collection the more pronounced would the objections be.

Finally, the extension of the credit system would involve all manner of complications. In the inheritance tax the situation is comparatively simple. Suppose, however, that the method were applied, let us say, to business or to corporation taxes. What kind of a state tax, paid by corporations, for instance, would entitle them to a credit? Some states have a corporate income tax, some a tax on corporate gross receipts, others subject corporations to the general property tax, and virtually everywhere corporations pay taxes upon their real estate to either the local or the state government. Which among all these various taxes would be considered in the system of credits? The whole subject bristles with difficulties which have not yet been faced.

If, then, we observe these four points—compulsion, rigidity, duplication, and complication—it is clear that the credit system, while in many ways admirable, by no means affords a perfect solution of the problem.

We accordingly are led to a consideration of a third form of coordination, namely, that of division of the yield. This plan implies only a single and more comprehensive collecting agency, with a transfer of a part of the yield to the lesser divisions, in this case the states.

The three great advantages of such a system are simplicity, economy, and suitability.

It is obviously far more simple and more economical to have a single or unitary system than to be confronted by duplication with its accompanying wastefulness and extravagance. But of even greater importance is the consideration of suitability. The fitness or suitability of a tax depends in large measure, as we have seen above, upon the economic basis. It is for this reason that there has been such a development of the principle of division of yield as between state and locality. The taxes, whether imposed on corporations or mortgages or incomes or inheritances, have come more and more to be entrusted to the state authorities, while a portion of the proceeds has been allotted to the locality.

A somewhat similar line of argument has now come to be applicable to the relations of state and nation. Several decades ago we called attention to the growing difficulties that were being encountered in the levy of the state income taxes because of the problems of interstate commerce. Similar difficulties attach to the adequate state taxation of business, whether corporate or otherwise. The embarrassment would be still further accentuated in any attempt by the states to levy certain indirect taxes. The lack of success would show itself not only in the yield but also in the matter of justice as among the taxpayers. With the extension and nationalization of our economic life, the arguments for a wider administrative basis become increasingly strong.

Finally, where the federal finance acquires a dominating position in the national economy, the pressure in favour of a unitary system becomes irresistible. This is the reason, for instance, why under the demands of reparation payments the German fiscal system was revolutionized a few years ago, so that the national government has become the sole collecting agency, with a division of the yield to the states and with a further subdivision to the localities. Such a revolution, however, is unlikely in federal governments not exposed to similar contingencies. In the United States such a solution, even if desirable, would meet with almost insuperable obstacles.

As a matter of fact the system of division of yield, although in many respects preferable to the credit system, possesses certain weaknesses which must be weighed up against the advantages of simplicity, economy, and suitability.

The first weakness is a certain degree of dependence. If the states were to abandon their chief sources of revenue and were to be supported out of the revenue collected by the federal government, there could not fail to be a growing sense of inferiority, which would naturally be distasteful. In the second place, there would be some measure of uncertainty, which would carry with it a degree of inelasticity. If only a definite part of the yield were allotted to the states, their share would naturally vary with the yield of the entire tax. This might change from year to year and that, too, in a direction opposite to what might be needed. It is conceivable, for instance, that there might be a federal surplus at the same time as a state deficit in a particular commonwealth, or vice versa. Under a strict application of a system there would be no provision for elasticity in state revenues.

In the third place, we should have to face the problem of the criterion as to the division of revenues. This has already engendered not a little trouble with the separate states: the difficulties would be far greater in a federal system. Should the criterion of division be population, or wealth, or real estate, or a dozen other possible items? The complications here are wellnigh infinite.

On the whole, therefore, while the division of yield is a more satisfactory form of co-ordination than any of its predecessors that have been considered, the problem is not yet completely solved. The question still presents itself as to whether there is not some way of preserving the advantages of co-ordination while minimizing its shortcomings.

We venture to suggest that such a final and promising form of co-ordination is at all events possible and deserving of consideration. Such a system of co-ordination we should like to call that of supplements or additions.

Under a system of supplements the federal government would be the primary collecting agent, but the state government would have the power to add supplements or additions of its own. Let us suppose, for instance, that the federal government imposed a personal income tax at such rates and under such conditions as to yield a definite revenue for federal purposes. If the state government now desired to secure a revenue from personal incomes, it would simply ask the federal government, in collecting the tax within the given state, to tack on such additional percentages as would be desired by the state in question. The individual taxpayer would pay only a single tax and the federal government would automatically turn over to the state the proceeds of the supplement or addition. If there were any constitutional objections to this procedure, they could easily be removed by having the taxpayer make out two copies of his report, one of which would make the modifications needed to meet possible constitutional objections, and arranging for the state to have a separate collecting office to receive the supplements.

The advantages of such a system are obvious. In the first place the objective of suitability would be attained; the tax, whether direct or indirect, would be collected by the agency economically and administratively most suitable. In the second place, there would be no element of subjection or compulsion. If the state did not desire that particular kind of revenue, it would not be compelled to adopt it. In the third place, there would be no duplication of taxes, and thus an immense saving in the cost of collection. In the fourth place, we should possess an elasticity in the state revenues, because the state would be at entire liberty to arrange its supplement or additions in conformity with its particular needs. Finally, the state would still have quite enough fiscal problems of its own, not only in levying taxes, as that would be relatively unsuitable for federal administration, such as local license taxes, local consumption taxes, and the like, but also in the supervision and control of the local revenues and especially of the real estate taxes.

Under the system of supplements the federal government would be performing two functions. It would act for itself in balancing its own budget and it would act as delegated agent of the states.

It must be conceded, indeed, that the system of supplements is not entirely without shortcomings. It is possible, for instance, that the varying interests of the separate states might justify a departure from the federal pattern of a particular tax. In an income tax, for instance, it might be desirable in a farming community to fix the limit of the personal exemption somewhat differently from that in an industrial state. Other variations in detail are conceivable. In the same way in the case of the death duties it might be desirable in the case of the state supplements to select some criterion other than that of the residence of the decedent which is observed in the federal tax. Such difficulties, however, could be overcome with relative ease in the elaboration of the system. Moreover, it must be remembered that there is no possible plan which presents only advantages without shortcomings of any kind. The most that can be expected of any system is to combine the greatest number of advantages with the smallest number of drawbacks. This, it might be claimed, will on the whole be most adequately realized by the system of supplements.

There are two great objects that are susceptible of attainment under this particular plan of co-ordination. The first is that the state will be in a position to lighten the load of the localities to any extent that seems desirable. By this flexible addition to its state revenues, it can utilize both the direct and the indirect federal taxes to make up any deficiency that may be caused by the further assumption of local expenditures or by any increased allocation of state revenues to the localities. The alleviation of the local burden on real estate may then be effected in the light of general principles and of relative obligations.

In the second place, the federal government in fixing the rates of the taxes, both direct and indirect, that are needed to balance its own budget, will do so with due consideration for the total combined rates resting on the individual taxpayer. This will undoubtedly lead to a spreading of the burden over a wider area, so that a due balance may be found between direct and indirect taxation. A survey of the entire situation cannot fail, with moderation and good will on both sides, to bring about a mutual adjustment, as workable as it is equitable.

We conclude, therefore, that in our search for a system of integration or reciprocal adjustment of public revenues, it is unlikely that any single or exclusive method will be adopted. The best for which we can hope is a combination of the various systems which promise the greatest benefits. We have seen that the system of separation will have to continue in part. It is probable that the system of duplication will remain in certain less important domains. The system of subordination or grants, again, will no doubt persist in certain fields, where the central interests become of commanding economic importance. The probable future, so far as the bulk of the revenues are concerned, lies, however, in some form of co-ordination. In this system of co-ordination there will be room for all four methods—the realignment of Government functions, the system of credits, the division of yield, and the system of supplements or additions. What is needed is a careful elaboration and testing out of each of these methods. In the final outcome success will be achieved only if due heed be given to the fundamental principles that underlie every fiscal system: the principles of adequacy, certainty, economy, and flexibility, together with conformity to the demands of economic justice.

QUELQUES REMARQUES SUR L'ÉVOLUTION ÉCONOMIQUE INTERNATIONALE ET LES GRANDES FLUCTUATIONS MONÉTAIRES

FRANÇOIS SIMIAND, *Collège de France, Paris*

Sur cette vaste et complexe matière qu'est l'Évolution économique internationale, je n'ai certes pas la prétention de pouvoir présenter, en ces quelques pages, ni une étude des faits, ni une interprétation de ces faits, qui suffisent à constater et à prouver selon les exigences qu'une recherche économique positive comporterait. Je serais heureux déjà si, par ce court exposé, j'obtenais simplement une prise en considération sérieuse, une admission à examen plus poussé, des thèses que je vais sommairement y formuler touchant cette évolution, et qui se lient en extension et en renforcement réciproque à celles dont j'ai exposé ailleurs la formation avec tout le développement nécessaire.*

Des ensembles de recherches et d'élaborations de données positives rapportés en ces ouvrages, j'ai cru, en effet, pouvoir dégager des résultats qui se résument ainsi:

1° — Tous les grands ordres de faits que nous atteignons dans des cadres de l'évolution économique dite de type avancé et progressif, présentent un développement semblablement caractérisé: il procède (à travers des fluctuations plus courtes et plus spéciales) par grandes phases d'au moins plusieurs décades d'années chacune;

— phases alternatives de deux sortes (que nous appellerons phases A, phases B), qui peuvent se définir et s'opposer de façon respectivement différente selon les ordres de faits;

— mais s'opposent de façon semblable en répétition alternée, et se correspondent, en gros, entre ces faits, quant aux datations de début et de fin, et quant à l'alternance de ces doubles caractères respectifs.

2° — Une revue systématique de tous les ordres de facteurs qui ont paru susceptibles de présenter entre ces mouvements quelque relation notable de concomitance, d'antécédence, voire d'interprétation, aboutit à dégager un certain nombre de correspondances assez régulièrement répétées aussi, qui paraissent se lier, se sérier, se subordonner ou se conditionner entre elles, de telle manière qu'après discussions, éliminations, recoupements, se reconnaît à l'origine de tous ces doubles mouvements un "primum movens" manifeste, le mouvement des moyens monétaires, savoir:

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* *Le Salaire, l'Évolution sociale et la Monnaie*, Paris, Alcan, 1932, 3 vols. in 8°. Spécialement tome II, ch. VI et VII.
Recherches anciennes et nouvelles sur le Mouvement général des prix du 16è au 19è siècles, Paris, Edit. Domat-Montchrestien, 1932, 1 vol. in 8°. Spécialement 4ème partie.
Résumés dans: *Les fluctuations économiques à longue période et la crise mondiale*, Paris, Alcan, 1932, 1 vol. in 16°.

— En cas de moyens monétaires convertibles, augmentation du taux d'accroissement du stock des métaux précieux à fonction monétaire, phases A; atténuation de ce taux, phases B;

— avec mouvements, de même caractère respectif, proportionnels ou plus que proportionnels, des divers substituts de la monnaie (convertible), s'ajoutant selon les cas au stock de métaux précieux;

— En cas de moyens monétaires non convertibles, formation et augmentation en rythme croissant de ces moyens, phases A; limitation ou diminution (ou parfois retrait) de ces moyens, phases B.

3° — Cet ensemble de liaisons ou de séquences apparait n'être ni automatique, ni mécanique, ni réversible, mais se produire par la mise en jeu d'actions et de réactions de l'homme, de l'homme social conditionné de façon alternative et successive par ces antécédents respectifs; et différemment, mais en concordance, selon la fonction et la place de chacun dans la vie économique. A ce point des résultats, un examen critique approprié aboutit à reconnaître en eux un ensemble rationnel de régularités intelligibles et d'interprétations explicatives.

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Sur la base des constatations et des interprétations ainsi rappelées, quelles seront donc les thèses que nous annoncions, relatives à l'évolution économique internationale? Les voici en bref sous une première forme:

"L'existence, le fonctionnement d'une économie internationale sont, de façon centrale, essentielle, fonctions de l'existence et du développement de ces grands mouvements des moyens monétaires dans leur comportement d'ensemble;

"Les diversités ou les variations que présente la participation (plus grande ou moins grande, croissante ou régressive) des économies nationales à l'économie internationale sont fonctions (de façon centrale et essentielle aussi) de la différenciation de ces grandes fluctuations monétaires entre les nations."

Et je hasarderais même en une deuxième forme:

"Ces grandes fluctuations monétaires sont à l'origine (ou le 'primum movens'):

"de la formation et de l'évolution moderne et contemporaine de l'économie internationale;

"des participations respectives des diverses nations à cette économie et des variations de ces participations;

"de la politique économique (quant aux relations internationales) respective de ces diverses nations et des variations de cette politique."

Pour valoir à ces thèses, — on le voit, très larges, — la simple prise en considération, la simple admission à examen, auxquelles j'ai borné l'ambition de ce court essai, je voudrais présenter ici, en peu de mots, deux ordres d'observations:

(I) Le développement (moderne et contemporain) de l'économie internationale, dans l'ensemble et dans ses différenciations nationales, est, lui aussi, caractérisé par des phases alternantes opposées, et ces caractères ne paraissent pas être explicables par les traits usuellement employés à l'expliquer;

(II) Par contre une liaison centrale est aperçue possible, probable, des grands faits monétaires avec l'Economie internationale ainsi qu'avec ses différenciations entre les nations, et parait donc mériter étude proprement appliquée et poussée.

* * *

Il est très manifeste que d'ensemble, dans l'âge moderne et contemporain, et dans le cadre de l'économie de type le plus avancé, un passage se marque, et d'importance croissante, d'économies de type national, à une économie internationale, mondiale.

Mais il est aussi manifeste que ce mouvement n'est ni simple ni automatique, ni continu de sens ou d'intensité, et qu'au contraire, selon telles ou telles périodes ou tels ou tels cadres respectivement, il rencontre des résistances, des actions en retour, voire marque des régressions bien effectives, s'il présente, d'autre part, des poussées plus vives, bien effectives aussi.

Or, regardons aux concomitants, aux antécédents, ordinairement allégués en interprétation ou explication de ce mouvement vers une économie internationale. Sauf erreur, je trouve présentés comme facteurs d'évolution en ce sens:

le développement des connaissances,— connaissances géographiques, connaissances scientifiques, — comme entrainant par leur nature, par leur portée, communication, utilisation commune entre les hommes;

le développement des moyens de transport, maritimes, terrestres (ferroviaires, notamment, depuis un temps déjà presque séculaire, automobiles depuis un autre plus récent), aériens (depuis moins encore, mais avec quelle extension, dessinée, annoncée);

le développement des techniques, permettant des productions élargies, agrandies, et respectivement les plus favorables en des pays différents selon leurs ressources, activités ou possibilités;

le développement des mises en valeur: de forces naturelles nouvellement découvertes et rendues nouvellement utilisables; — ou encore de territoires nouvellement ouverts à une exploitation possible.

Est-ce qu'entre tous ces développements, — à simple, mais suffisant aperçu d'ensemble, — il ne nous apparait pas ce trait commun qu'aucun d'eux n'est, en lui-même, un mouvement à phases alternantes de caractère opposé, et répétant cette opposition alternée depuis les temps modernes? Faisons, en effet, depuis le 16ème siècle et davantage depuis la fin du 18ème siècle, décade par décade, ou mieux encore quart de siècle par quart de siècle, une reconnaissance sommaire des progrès effectifs que nous pouvons respectivement dater de ces décades ou de ces quarts de siècle: dans l'ordre des connaissances géographiques, scientifiques; dans celui des moyens de transport; dans celui des techniques de fabrication; dans celui des mises en valeur nouvelles de forces ou de territoires. Je crois bien que, grosso modo, et balançant les uns et les autres, nous les trouverons sensiblement en correspondance de nombre, de grandeur ou d'importance, si, du moins, nous nous plaçons et restons strictement au point de vue physique, au point de vue des réalisations ou des possibilités matérielles comme telles. Et, en tout cas, nous n'apercevrons pas en ces divers ordres de progrès, et de ce point de vue purement physique, une distinction et une alternance de phases respectivement homologues et répétées (selon quelque caractère tel en la première sorte de phases, et tel autre en la seconde).

Mais il en va différemment si nous considérons ces progrès dans leur expression, dans leur réalisation ou extension économiques, c'est-à-dire effectués, traduits en valeurs économiques. De ce point de vue, aussitôt, en ces divers ordres de faits, on peut reconnaître (grosso modo également, mais de façon suffisante pour notre objet ici) que leur mouvement ainsi exprimé en valeurs économiques globales qui y correspondent se présente avec des phases alternantes et de caractères respectifs répétés, homoloques à nos phases A et B déjà reconnues. Si cette expression économique globale est manifestement le produit de deux facteurs, l'un de quantités physiques, l'autre de valeurs économiques unitaires, qu'est-ce à dire sinon que l'alternance et opposition répétée que nous retrouvons en cette expression économique globale doit tenir au facteur économique et non au facteur de quantité physique, c'est-à-dire aux prix? Et si le mouvement des prix nous apparait ainsi le facteur de différenciation des phases alternantes dans les ordres de faits qui caractérisent le développement de l'économie internationale, n'est-il pas bien connu, n'est-il pas admis de tous (sauf différences dans la formulation et l'interprétation de la liaison) que le mouvement général des prix soutient liaison centrale et essentielle avec le mouvement des conditions monétaires?

S'agit-il des différences entre les nations dans leur participation à l'économie internationale, et surtout du mouvement de ces différenciations en notre période moderne d'économie développée? Une reconnaissance spéciale déborderait trop notre cadre ici pour que nous puissions seulement l'esquisser. Mais qu'il nous suffise de signaler, ici encore, l'insuffisance des facteurs communément invoqués pour en rendre compte. Facteurs géographiques? Ressources naturelles? minéraux du sous-sol? nature des terres? Mais ils étaient tels depuis toute antiquité: comment donc viennent-ils à utilisation, et à utilisation différentielle, seulement en telle période, et encore, ensuite, selon des phases alternantes de caractères? — Capacités, activités professionnelles des hommes? Mais une histoire sommaire suffit à nous les montrer plus ou moins récentes; et, en tout cas, acquises, ayant varié; et donc ce qui est ici vraiment explicatif, c'est le facteur qui les a fait se constituer, se différencier et varier de la sorte et dans ces temps respectifs. Dans quel ordre de faits ce facteur nous semblerait-il donc plutôt à reconnaître?

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Regardons maintenant, de façon directe, aux liaisons qui peuvent, à sommaire examen aussi, nous apparaitre entre l'évolution économique internationale (avec ses différenciations nationales) et l'ordre des faits monétaires.

L'existence, la constitution d'une économie internationale et, lorsqu'elle existe, le fonctionnement et le développement de cette économie, n'impliquent-ils pas, de façon initiale et centrale, que des nations diverses, et les hommes relevant de ces diverses nations, se trouvent, pour quelque partie de leur vie sociale et humaine, être et agir dans un plan commun qui ne soit pas un plan religieux, intellectuel ou scientifique, juridique ou politique, mais soit un plan proprement économique? Mais à quoi un tel plan est-il reconnaissable? Assurément à l'existence et au fonctionnement de relations dites économiques entre ces nations ou ressortissants de ces nations. Et à quoi se reconnait, à son tour, le caractère proprement économique à des relations? Sans conteste, à ce qu'elles se traduisent (je ne dis pas: se constituent, se résolvent tout entières, — ce serait là postuler résultats de recherches que je réserve en ce début), à ce qu'elles se traduisent, plus ou moins complètement, mais de quelque manière caractéristique (dis-je donc seulement pour l'instant), en une expression de "valeur économique," c'est-à-dire, en fait (au stade économique où nous nous encadrons) en expression de "valeur monétaire." Une rapide reconnaissance des grandes catégories que nous pouvons apercevoir à ces relations peut suffire ici à nous en convaincre.

1° — S'agit-il de relations entre nations différentes (ou ressortissants de nations différentes) touchant les marchandises? S'il est vrai qu'elles sont seulement développées lorsqu'elles ont dépassé non seulement le stade du don réciproque, mais encore celui du troc, — stades qui sont, du reste, peut-être d'autres ordres de faits que l'échange économique proprement dit, — elles supposent un terme commun de référence des valeurs économiques admises à cet échange: c'est-à-dire non seulement une tierce marchandise, telle ou telle, employée à faciliter l'échange, non seulement quelque représentation de valeur des marchandises de la première nation en marchandises de l'autre, ou réciproquement; mais bien, et pour ce résultat lui-même, une expression possible des unes et des autres en quelque échelle commune des valeurs, par rapport à ces opérations elles-mêmes. Autrement dit, ces relations entre nations touchant les marchandises impliquent, dès qu'elles sont développées ou même déjà pour se développer, quelque étalon des valeurs économiques commun entre ces nations, c'est-à-dire, pratiquement, et avec cette fonction et cette importance cardinales, quelque expression monétaire ayant valeur entre ces nations, ayant valeur internationale reconnue.

2° — Plus généralement et dès l'origine, les relations économiques entre nations, déjà sous la forme la plus simple, mais la plus fortement réalisée d'abord, apparaissent comme des relations de commerce à distance, à longue distance, donc impliquant que la réalisation couronnant et couvrant ces opérations (non seulement ventes effectuées, mais recettes de vente encaissées) est, forcément, plus ou moins éloignée dans le temps par rapport à l'exécution des opérations antérieures nécessaires (obtention, achat des marchandises à transporter et vendre, frais d'entretien en attendant, frais de transport, etc. . . .) — sans parler du risque possible de non réalisation, au moins partielle. Elles supposent donc, de ce chef, en général, "des avances," et en général aussi, des avances exprimées et même réalisées (au moins pendant un temps et au moins pour une part plus ou moins grande) en moyens monétaires. Mais apercevons et ajoutons bien de notre point de vue ici: en moyens monétaires, non seulement du pays du marchand, disons pays A, et restant dans ce pays A, mais encore soit d'autres pays soit convertibles en moyens d'autres pays; par exemple, pour payer son vendeur de pays B, avant d'être payé par son acheteur de pays C, D; par exemple, pour entretien ou transport aux pays B, C, D. Ainsi le commerce international, et d'autant plus qu'il est à distance, et plus indirect, et complexe, suppose des avances à forme monétaire, et à forme monétaire ayant correspondance entre les nations.

3° — De façon plus centrale encore à des relations de type un peu avancé, les relations économiques entre nations se compliquent et s'allongent du fait des séparations entre les stades des opérations industrielles et commerciales que nous voyons se distinguer et se succéder depuis la matière première originaire jusqu'à la vente réalisée du produit entrant en consommation terminale. Citons en seul exemple une filière que nous avons pu connaître effective: la laine de moutons élevés et tondus en Australie devenait fil au Japon, tissu de flanelle dans les Vosges, tissu vendu à Paris, transformé en vêtement en Angleterre, vêtement vendu enfin en Hollande au client qui le portera. Comment la suite de ces opérations et relations serait-elle possible sans une anticipation conçue et même effectuée de cette réalisation terminale, et, pour cela, sans que (bien avant que la vente du costume soit effectuée) un paiement de l'éleveur australien soit avancé par le filateur japonais, payé à son tour par le tisseur vosgien, payé à son tour par le confectionneur anglais, etc. . . .? C'est-à-dire, comment cette filière serait-elle possible sans l'existence et l'emploi de quelque moyen de représenter, de réaliser d'avance, pour la part convenable, une valeur future, — ce qui est la définition même d'un des rôles, sinon du rôle le plus important, de la monnaie et des moyens monétaires en économie de type avancé? Mais précisons davantage ici: comment serait-elle possible sans l'existence et l'emploi de moyens monétaires à valeur comparable et suffisamment stable entre les nations?

4° — Plus centralement encore à une économie avancée, et avec des implications plus durables et plus complexes encore, rappelons-nous que l'échelonnement encore plus long comporté par une économie de ce type entre la fabrication et la prestation de moyens de production, de moyens de transport, etc. . . . (et de tous éléments dont le coût ne se rembourse pas sur une seule série d'opérations), d'une part, et la récupération de leur coût d'établissement par les amortissements successifs obtenus sur les opérations d'un nombre d'années souvent élevé, d'autre part, suppose des avances encore plus considérables. Or, apercevons combien les processus de cet ordre, et d'autant qu'ils sont plus complexes et plus importants, se montrent de plus en plus relever, en leurs divers éléments, d'économies nationales différentes: soit sous la forme de fourniture et vente de ces moyens effectuées d'une nation en une autre, avec récupération plus ou moins échelonnée; soit sous la forme d'avances monétaires faites d'une nation en une autre (à court ou moyen terme, à long terme encore plus) qui permettent l'achat initial, voire même suscitent et soutiennent l'entreprise elle-même; et cela souvent avec emploi de ces avances en opérations ou produits relevant d'une tierce nation. Comment tout cet ensemble complexe de relations économiques entre nations, si important dans le développement le plus avancé, serait-il possible sans l'existence et l'emploi, largement permis et longuement soutenu, de moyens monétaires ou d'expressions monétaires à valeur internationale et suffisamment durable, ou tout au moins d'évolution (si elle doit ou peut évoluer) suffisamment prévisible?

Des quatre points de vue où nous venons de nous placer, apparait donc un rôle central, constitutif, des moyens monétaires pour la formation et pour l'extension des liaisons économiques entre les nations. Il nous reste à apercevoir qu'ils en ont encore un d'égale importance, et d'aussi grande conséquence, en sens inverse, en limitation, en restriction, et souvent différentielles, de ces liaisons mêmes.

5° — En effet, c'est un fait manifeste très général encore, et non point exceptionnel, que les échelles des valeurs économiques, exprimées nationalement dans l'unité monétaire de chaque nation, peuvent ne pas se correspondre en transcription internationale, — et en un sens c'est même là et une origine et un avantage possible de l'échange international —: mais il faut ajouter que ces différences peuvent être d'une consistance et d'une grandeur fort diverses selon les nations, selon leur constitution économique, historique, et leur position ou leurs tendances par rapport à l'économie mondiale; et plus gravement encore, qu'elles peuvent présenter des changements qui, entre elles, selon les périodes ou selon les cas, soient bien loin d'être assez synchroniques, ou encore assez homologues de sens, de caractère, de proportion, pour ne pas altérer parfois soudain, et en tout cas grandement, leur situation économique relative. De là, de brusques handicaps, que l'économie nationale mise en infériorité relative (par rapport à sa situation relative antérieure elle-même) peut difficilement accepter sans essai de résistance et de défense. De là de soudains changements (tels que ceux dont l'expérience récente nous fournit tant d'exemples) dans les niveaux relatifs des prix de revient, des coûts de la vie, devenus plus élevés, moins élevés, qu'en leur rapport précédent, entre pays concurrents, entre pays vendeurs et pays acheteurs, etc. . . . De là aussi les mesures de caractère différent envisagées, tentées, de protection, tantôt contre une économie de type supérieur, tantôt, à l'opposé, contre une économie de type inférieur. Nous n'avons point ici à énumérer ou esquisser seulement tous ces ordres de faits. Mais nous devons marquer et retenir qu'ils se caractérisent tous par une différenciation entre les échelles des valeurs monétaires nationales, par rapport au terme de référence commune antérieur.

Et dès lors, de ce chef, comme des quatre précédents, et en l'un comme en l'autre sens, ne pouvons-nous pas conclure en faveur des thèses présentées ?

* * *

Pour autant qu'existent et se développent d'ensemble, ou encore se restreignent différemment, des relations économiques entre les nations, ne prennent-elles pas, n'impliquent-elles pas une expression monétaire commune (ou réductible d'une des expressions monétaires à l'autre) ? et mieux ne procèdent-elles d'une expression monétaire commune ? d'une expression monétaire commune dont la valeur, actuelle, future, soit distinctement définie, suffisamment stable, ou au moins suffisamment prévisible ?

S'il en est ainsi, ne sommes-nous pas conduits à apercevoir que la formation et l'évolution de ces relations économiques entre nations doivent bien être en étroite et directe liaison possible, probable, avec ces moyens monétaires, et cela spécialement selon la constitution et l'évolution internationales de ceux-ci ? et que les positions et les modifications de position des diverses nations par rapport à cette économie internationale commune doivent bien être elles-mêmes en liaison possible, probable, avec les différenciations, et changements de différenciations, de leurs conditions monétaires par rapport à leur référence commune ?

Mais quelle est au juste cette liaison ? de dépendance fonctionnelle, ou bien mécanique ? d'antécédence au titre de condition, ou au titre de cause ? directe et se suffisant, ou impliquant des facteurs intermédiaires et plus topiques encore ? Voilà ce que seule une recherche positive dûment fondée, dûment poussée, pourrait dégager valablement. Notre but ici serait atteint si ces brèves remarques avaient amené à penser qu'une telle recherche apparait mériter d'être ainsi posée, ainsi poursuivie, et par là conduite à des résultats de quelque valeur de faits et de quelque portée d'explication.

MEASUREMENT VERSUS THEORY IN ECONOMICS

CARL SNYDER, *Federal Reserve Bank of New York*

It is banal to observe that two great discoveries, chiefly, have conspired to transform the ancient world of grazing flocks and hand-tilled fields into the mighty industrial system of to-day, with its prodigious engines and machinery of production and distribution. To these, in our own lifetime, has been added a third.

Needless to say, these are steam and electricity, and now the oil and gas engine. And the interesting thing is that for thousands, nay, for tens of thousands of years, these great powers lay unknown and unsuspected—until the *discoverer* came.

Who, for example, would have suspected that the oil floating upon creeks here and there might reveal a new power that would carry an aeroplane at three hundred miles per hour? Who would have dreamed that, by whirling a bar of soft iron between coils of copper wire, we might grind out vast quantities of electricity—so to speak, out of the air; and with this drive millions of motors and machines, placed wheresoever we like? And who, in turn, would have suspected that the forces of the lowly tea kettle might be employed to speed colossal palaces of steel across the oceans at six or seven hundred miles a day?

These and most other notable products of invention and science required for their realization long, patient, tedious measurement and experimentation, i.e. research workers. These are the revealers, the inventors, the creators, of the powers and the wealth of the modern world.

Yet, for three years and more, now, this prodigious miracle of our modern industrial organization has stood half paralysed, mills idle, millions of workers in want. That is the paradox. And it is all too evident, from the endless controversy, and countless "remedies" offered, that there is not even an approach to any kind of agreement, or understanding as to the reason *why*.

The economists cannot agree; therefore, it is clear none has decisive proof; that is, definite knowledge. This is evident from the oft-repeated remark that if an opinion were asked of the twelve leading economists of this country, or of all countries, they would return at least ten or eleven different answers. No better off is the banker or the captain of industry than the man in the street. And yet we have had recurrent depressions, none perhaps as severe as this, for more than a hundred years.

This complete failure of economic and social understanding to keep pace with scientific knowledge and the mechanical revolution—in a word, with the rise of Science and the coming of the Power Age—is one of the striking contrasts of our time. What is still more poignant is the evidence that apparently we shall emerge from this depression, when and if we do, with no more understanding and no greater powers of future control.

All this is but too evident from the flood of "plans" and theories and "explanations" which pour forth in bewildering confusion, and for the most part in utter contradiction and variance one with another. And with a few notable exceptions all this, clearly, is largely dream stuff, supported by no serious proof or even careful investigation. It is well known to the psychiatrist that the lunatic asylums are full of similar saviours of society, writing reams of similar stuff.

Why no agreement? Why no serious proof? Why are the economists and the experts almost as bewildered or, if not bewildered, as utterly divided in their theories, explanations and proposals as the gentlemen of the lunatic asylums?

The answer is, as the writer sees it: Because there has been so little careful, patient, scientific study of the same type, and utilizing the same methods of investigation, as those which have created our modern industrial world.

Almost wholly, scientific understanding and revolutionary inventions are the result of patient measurement, comparison and experimentation. Without this, Faraday's modest contrivance of coil and magnet could never have been developed into the fifty thousand horse-power electric dynamo of today. Without this, indeed, even the modest contrivance itself would never have been built. Faraday's discovery, perhaps the greatest single discovery in the history of the modern world, was the result of a finely trained scientific imagination united with a capacity for long, patient research. The same is true of the radio, the telephone, the telegraph, the telescope and all our modern miracles.

Economists have been slow to utilize the extraordinarily fruitful methods of the physical sciences. It has been much pleasanter, and much easier, to exercise their astonishing powers of logic and dialectic, at what they are pleased to call "reasoning" about things, than to search through weeks and months and years for the solid foundations of scientific *proof*. And this explains why, in general, economics has made such slight progress (if any) in more than a hundred years, and why it is today so largely but a repetition of the words (just words) of Smith, and Malthus, and Ricardo, and Mill. Professor Cassel has been one of the rare exceptions.

Still more discouraging is the fact that the effort towards some sort of a scientific basis for economics dates far back. More than a hundred years ago, daring spirits had begun to attempt measures of the variations of prices and slowly developed the concept of *price levels*. This was after Ricardo had explained that the whole idea of attempting to make an average of all kinds of prices was pure nonsense and meant nothing. Today we have scores and hundreds of such indexes, of the widest variety, and yet there are few economists who know or would believe there is such a thing as a fairly definite *price structure*; that is, that prices tend to fluctuate more or less together, and in spite of wide variations that, for the most part, the relationships of these prices in this price structure have changed but little in the last sixty or eighty years, at least.

While the economists have been dreaming, arguing, disputing over questions of changing costs of production and all the like, the prices of the great bulk of commodities, with some notable exceptions, of course, have changed relatively in but a slight degree.

From this comes the obvious suggestion that the main forces in the wide variations in prices *and* in the price level, have been forces extraneous to the commodities and the products themselves, and not inherent in industry and production. In a word, that the costs of production are themselves largely determined by these extraneous factors; and the *relative* costs of production, in the great body of things, have varied in the main surprisingly little. This simply means that technological improvement tends to spread rather evenly and to be realized in all kinds of industry in a somewhat similar degree.

All this can be demonstrated very simply and easily, as I have elsewhere set forth; and all this, of course, has a fundamental bearing upon the question as to why we should have had in the last three years and a half the greatest fall in prices, outside of war disturbances, which has been known in this country in a hundred and fifty years, through which the record extends. But in the multitudinous "explanations" offered for this unexampled and disastrous decline, these definite facts are largely ignored.

So with the problems as to the volume and variations in production and trade. Though economists have been learnedly discussing these questions for a hundred years and more, it is an astonishing thing that until ten or fifteen years ago no careful measures, no determinative and decisive *tests*, of all the endless theories about these things, existed.

And so with the idea that all industry has very definite rates of growth, and especially industry as a whole, very slowly changing rates of growth, as though there was a very real momentum or inertia involved in these things. Professor Cassel's estimate of the rate of growth of industry in Europe, first published, I believe, in 1904, was, so far as I know, the earliest estimate that had been made. But it was not a measurement; it was a deduction, a deduction from a theory, which theory, in turn, had then, I should say, relatively little clear, conclusive, inductive support. It is only since the War that such measures have been undertaken, and these rates of growth carefully computed.

That, in turn, these measures have a decisive bearing upon all the theories of "over-production," "excess capacity," "unbalanced industry," and their endless variations and commutations, is as yet, I fear, caviar to the great majority of economists. To my definite knowledge, these measurements and these computations of rates of growth have been flouted by distinguished economists like Mr. Keynes and Mr. Hawtrey, not to speak of a multitude of others, as either pure nonsense or entirely useless and a waste of time. Their logic and their powers of reasoning are so superior to anything so crude as actual measures or ascertainable facts.

As little did it seem clear that such measurements were of vital import to the central problem of all economics, that is to say, the relation of money, trade and prices; a problem before which all other economic questions are of relatively slight consequence. So long as it was possible to theorize about "over-production," in all its protean varieties, it was impossible to build up in most minds a feeling of probability that violent fluctuations in the broad general level of prices were solely a monetary phenomenon; nor can a large portion of economists believe this to the present day. Still less that here is the vital factor which not only determines booms and depressions but their duration and severity as well.

Admitted that wide changes in the volume of the "currency," or, more broadly, in the volume of monetary supply were of influence, were there not other factors just as important? For example, the activity or rate of turnover of this circulating medium, the so-called "velocity of money." Is not this an independent factor, recurrently intruding to confuse the calculations and upset the naïve notions of the "quantity theorists"? What vials of scorn and contumely have been heaped upon this poor old work-horse of "quantity of money"! America, at least, has a veritable little army ready for immediate assault upon any luckless wayfarer from a crude and unmatured past who ventures to employ this provocative phrase.

For how could the ordinary man—not to speak of economists—really have any well-grounded ideas about this question until we had accurate measures, first, of the fluctuations of trade and industry itself, and secondly, of the rate of turnover of money, or its modern equivalent of bank deposits? Perhaps we should also add, an adequate and sufficiently inclusive measure of the broad General Price Level.

It is of interest that we have had such trustworthy measures only within the last ten years. For the measures of the variations of trade it was necessary, first of all, to establish a measure of the long-term trend of increase. For in progressive countries, at least, like the United States and Europe, production and trade, taken over decennial periods, reveal to a remarkable extent continuous increase.

Plainly, if this growth of industry has a definite *gradient*, then the variations of trade must be taken from this continuously rising volume of trade, and not from some fancied, and purely arbitrary, "level." All this seems perhaps elementary now, but this was not true even twelve or fifteen years ago. A quarter of a century ago Professor Kemmerer and, following him, Professor Fisher, had tried in vain to present convincing evidence of this now simple-seeming truth.

But the data they had at their disposal were inadequate for their purpose. With the extraordinary burst of statistical activity which came, in and since the World War, these data are now available in full measure; and while there are some differences to be found in the measures of the rate of this industrial growth, and the degree of variation of trade from this line of growth, these differences are not wide and the results sensibly concordant.

The only extended measures of velocity in the United States have been those made in my department. Similar measures have been attempted by Edie and Weaver for England. These measures seem to establish the fact that the activity of business and the activity of bank deposits, as perhaps might have been expected, tend to vary rather closely together. There are occasional discrepancies, as in the fantastic outbreak of speculation in the United States in '28 and '29; but these aberrations may now be readily recognized and properly allowed for.

What then becomes of the famous "equation of exchange," about which so much has been written in the near to half-a-century since it was first algebraically set forth, independently, by the distinguished astronomer, Simon Newcomb, and Professor Shield Nicholson, of Edinburgh? Clearly the influence and effect of the variations in velocity, if they are fairly synchronous with the variations of trade, must be cancelled. And the despised Quantity Theory steps forth in perhaps a more rigid and uncompromising form than ever before, that is to say, that if the quantity of circulating medium be increased at even pace with the normal increase of trade and industry, the price level, and therefore the long chain of other economic effects, will be approximately stable. But have we any proof of this? What proof?

Definitely is it clear that this relationship—the Trade-Credit ratio, as I have called it—does not correspond closely with our familiar indexes of commodity prices at wholesale, as the present writer, and also Dr. B. M. Anderson, among others, has shown. But what reason had we to suppose that such a correspondence with wholesale prices would necessarily exist, save in the naïve supposition that our indexes of commodity prices at wholesale are an adequate or even approximate measure of the broad level of all kinds of prices?

It is extremely difficult in the present stage of statistical development to construct such a broad index; the material is inadequate. But an empirical attempt to construct such an index had been made by the writer some ten years ago, in an endeavour to obtain from bank clearings, now bank debits, an independent measure of the variations of trade. When this confessedly crude attempt at a measure of the general price level was employed for comparison with the so-called trade-credit ratio, the results for the half-century or more for which the data were obtainable were surprising. For the years from 1918 to date, for which more representative data are available, quarterly, the results have been still more surprising, and could scarcely belong to the realms of chance.

It is, therefore, the writer's belief that this long-standing controversy as to the relation of money and prices, a controversy that has extended at least from the writings of Jean Bodin, in 1568, to the present day, has been definitively resolved. It will doubtless be a long time before the validity of this proof will be accepted generally by economists. But this is merely the usual thing throughout the whole history of the scientific advance. It was a matter of eighteen hundred years from the time that the Greek geometers in Alexandria had set forth decisive and unescapable proof that the sun was a vast body at an almost immeasurable distance, and that this lowly earth is but a satellite, before it was definitely accepted even by the greatest astronomers living.

All of the physical sciences, astronomy, mechanics, physics, chemistry, have had to undergo the same process of development, viz. the establishment of adequate measurements and, with these, correlations so conclusive as to force acceptance of their implications. It is the same with biology in our own day, and it will doubtless be the same with the still more undeveloped disciplines of psychology and economics in the future.

THE MONETARY QUESTION IN GREAT BRITAIN

JOSIAH C. STAMP, *London*

It has been said recently, with a rather grim wit, that books on Monetary Science should be written in loose-leaf binders. Certain it is that the developments of the subject in the last fifteen years have been various and bewildering, but when the time comes and they can be looked back upon calmly and analytically, the name of Professor Gustav Cassell will be a most honourable one in every respect. As a pioneer who was elaborating theory that was quickly put to the practical test, such as the principle of the purchasing power parity; as a commentator on current events, and as an analyst explaining what had been passing, he has earned the respect of all of us, and students of monetary science in all countries join to do him honour.

We are increasingly realizing that monetary science can never be exactly laid down because it is a subtle compound of the quasi mechanical and quantitative forces and equivalents of the pure quantity theory of money with an attitude of mind about money, and if that attitude changes some of the principles will refuse to work. It is as though we constructed a machine with a propeller to work in water and then asked it to do its work in syrup or in air. All the quantitative relationships upon which we build the science depend on reasonable consistency in the reactions of economic men in groups to certain stimuli. We realize that nothing is either good or bad, but thinking makes it so, and that that system will be unsafe which people persist in thinking is unsafe. In short, the element of confidence is capable of much wider variation than we had thought and, taken beyond certain limits in either direction, it renders possible or impossible, as the case may be, the application of our principles. If people in the mass persist in thinking that certain monetary mechanism is not safe, they will certainly succeed in making it unsafe. In the field of currency, mass psychology has its greatest scope for economic derangement. Men will run as fast from a dog that they think is a wolf, as they would if it were really a wolf, so that although at bottom economic facts are the things that matter in the end, in the short run, what people think about economic facts, however mistakenly, is just as important as the fact itself. It may be a long time before they find out their mistake and gain confidence and, in the meantime, their flight from one fancied horror, will bring new horrors in its train.

The uncomparable derangement in which we now find the world's monetary affairs at the time of writing, and the exceedingly difficult task before us of restoring the damage, and also making a new machine, which will not go wrong in the same way as the old, call for a careful examination in every country of the particular ills to which it has fallen a prey; the particular hopes that it desires to preserve and the particular psychological difficulties that its history and traditions and politics make likely to persist. These certainly differ in all the separate countries, and this article is to survey what, in the writer's judgment, are finally emerging as the particular difficulties of the past in relation to monetary affairs in the United Kingdom. There have been many charges and counter-charges—some of them from abroad, some from political rivalries within, and some from a genuine conflict of economic ideals. Many of them depend upon different estimates of what human nature can stand and understand.

What, then, are the weaknesses that stand revealed so far as England is concerned? I should enumerate seven as being the most important or distinctive. First, London by reason of its immense financial services to the Empire and the world, by its traditional leadership in the gold standard from the nineteenth century, and by the prevalence of the sterling bill, has been a too sensitive reservoir of world funds. This situation might have been different if any one person or Institution had been conscious of the totality of the movements, but in the aggregate we have been ignorant of them. Even at a time of special investigation, when the Macmillan Committee on Finance and Industry was paying particular attention to the subject and collecting special *ad hoc* statistics, they failed to grasp the whole truth. In asking themselves the question "how sensitive is London to a sudden flight from sterling, either in distrust of London and sterling or because of difficulties in foreign monetary centres, making it necessary for them to repatriate their deposits?" they ascertained the deposits in the London banks and came to the conclusion that London was reasonably secure on balance from foreign pressure, but they did not know and did not ascertain the deposits in the London branches of foreign Institutions; nor was *anyone* really seized of the actual position in London; it had been no one's business and it was not realized how increasingly sensitive this liability had become. If any market was to have as great a capacity for variation in range and as great a sensitiveness then it could only do so with safety if the conditions were known, at any rate, to someone in control, if not publicly. But these vast aggregates were varying without the knowledge of any living soul; varying in hidden conditions in which disaster was a question only of degree. A *sine qua non* of the future, therefore, is that the Central Bank or the Government should have some fairly approximate and frequent up-to-date knowledge of the total balance of indebtedness in its markets.

In the second place, the charge often made by continental writers that the responsibility for working the gold standard throughout the industrial organism was not recognized, must be admitted to be in part true. The gold standard certainly presupposes that the flow of gold to balance international trade must work out its effects in raising and lowering costs; otherwise, that standard is meaningless. The gold was flowing for political reasons and other reasons that were artificial compared with the balance of trade, and every effort was made to prevent wages and other costs rising and falling. The natural reactions of the gold standard were, therefore, denied—denied no doubt, or prevented, in self-protection, but all the same having the effects of *prevention* in destroying the self-balancing qualities of the gold standard. England's reactions were too tardy and too limited, and the consequence was growing unemployment, due to the increasing level of real wages and the spiral of deflation. The lesson for the future is that gold ought not to flow for any other purpose than trade balancing, and that if it does *not* then the responsibility for allowing it to have its natural effects upon the price level can be more readily accepted; but all the same it ought to be accepted. The social question, however, arises as to whether democratic institutions and Governments will trust themselves to this mechanism, so sacred are the obsessions about the fixity of money wages and interest contracts.

In the third place, the flow of monetary savings or subtractions of purchasing power from current expenditure is too steady and unyielding in a country with a net-work of provident institutions, insurance societies, sinking funds, and other irresistible streams which do not respond to the governing factor of price. If the change in the price of money has not the time-honoured economic effect of other changes of price in equating supply and demand, we are bound to get a condition of unstable equilibrium and the phenomenon of savings being far in excess of investment, and bringing about an excess of current production over current consumption, and consequent unemployment, is one that is partly due to this insensitiveness. It cannot be said that we ought for the future to restrict the amount of savings in these compulsory directions, but we ought to find some way of making the investment market more sensitive and absorbing. This is mainly a problem of confidence and perhaps when the other factors are put right this new confidence will be a natural product.

The fourth aspect is allied to the foregoing excessive steadiness of the flow. It is that the connection between the capital uses of money and the supply of money for those uses is too remote and disjointed, it being impossible to retard or enlarge the flow, as the case may be, very quickly or sensitively, so that the next best thing is to cultivate the technique through public and private investments, acting in a complimentary way to each other, of absorbing these funds; and here large questions of politics and governments are raised. Expenditure on public works, however useful for economic reasons, raises questions of politics and efficiency which may not be easily solved.

In the fifth place, a centre like London, which is looked upon to superintend and supply funds for foreign borrowers all over the world, can in the long run only supply what is left out of the total savings of the country after home capital is absorbed. If at any time these claims are greater than the home savings, difficulties are likely to arise.

Now the perfection of London as a lending market is a separately developed technique and it has no necessary connection, except so far as checked by underlying economic forces, with the total savings available at any time. It is possible for it to go on approving loans and meeting them, while its citizens have not really put themselves in a position to implement those loans out of their own resources. The underlying tendency, then, is for the funds to be drawn from foreign markets on short term, and we get a lack of equilibrium between the "time" quality of the money loaned and money borrowed which some day is fraught with difficulty. Here again, a closer knowledge of economic conditions at home and abroad and some central control over private lending houses seem to emerge as desirable.

In the sixth place, if London loans money abroad on a large scale, but the North of England, in its exporting industries, has costs too high for successful foreign exportation, then our industries will fail to implement what our financiers have promised to lend, for in the long run, financial loans must be implemented by industrial exports, except so far as they absorb foreign funds due to us. If our export costs are maintained, by trade union action or otherwise, on too high a level, then a great strain must be thrown upon the gold reserves or upon a good equilibrium between lending and borrowing. In the past no attempt has been made to link the amount of our London lending abroad with our power to export.

In the last place, with a rapidly falling price level, real wages have increased at a great speed. The purchasing power has been transferred from the hands of ordinary shareholders and institutions, who might have used it for increasing investments abroad. It has got into the hands of millions with increased purchasing power, who have enjoyed their new-found command over foreign produce of all kinds. In this way it has become fatally easy to squeeze the favourable balance of trade into the standard of living and to increase the actual total quantity of goods purchased from abroad at a time when the actual capacity of a country to purchase, judged by its productive power, is falling rapidly. This was one of the reasons why the balance of trade went so heavily against Britain in 1929, 1930, and 1931. For the future, in order to avoid it, we can only say that prices ought not to be allowed to fall because they make a constant money wage into a dangerously high real wage. But inasmuch as this is a pious wish, easier to enunciate than to achieve, we have to say the next best thing, viz. that if prices *do* fall and real wages *do* rise there should be a greater measure of adjustment in the industrial machine to counteract it. This answer is also, under modern conditions, more or less visionary. Perhaps the next best thing is to impede the flow of goods from abroad by artificial means, duties, etc., in order that the balance of trade may be properly protected and real wages prevented from becoming too high. It is a hard doctrine, but the proper economic line here would be to make good some of the transfer between the ordinary shareholder and the receiver of relatively fixed incomes and wages by relieving the taxation on the former, enabling him to have more to save, and increasing the taxation on the latter, preventing him from straining the gold position, endangering the foreign loan market, and upsetting the whole economic organism by an excessive import of foreign foods and luxuries.

These seven fundamental causes are interlocked and interlaced. I have had Britain in mind throughout and I do not doubt that a similar survey of the strains and stresses in other countries will throw up tendencies which are individual to each of them. It is only by agreement upon the same central principles and careful protection against our own idiosyncrasies that we can hope to work the international machine.

DAS REFLATIONSPROBLEM IM LICHTE DER THEORIE DES "NEUTRALEN" GELDES

G. M. VERRYN STUART, *Nederlandsche Handels-Hoogeschool, Rotterdam*

DIE heutige Wirtschaftsdepression hat bekannterweise zum weitaus grössten Sturze des Preisniveaus geführt, der in der Konjunkturgeschichte des letzten Jahrhunderts vorgekommen ist. Dass dieser allgemeine Preisfall von einer Einschränkung des Geldquantums, namentlich aber von einer Abnahme der Umlaufsgeschwindigkeit des Geldes verursacht wurde, und dass die Deflation überall, ganz besonders jedoch in denjenigen Ländern, die bis jetzt an der Goldwährung festgehalten haben, den Umfang und die Dauer der Depression sehr ungünstig beeinflusst hat, wird in steigendem Masse die *communis opinio.*

Sobald es sich aber um die Frage handelt, ob man die heutige Depression durch eine reflationistische Geldpolitik, d.h. eine systematische Erweiterung des zirkulierenden Geldes in seinen verschiedenen Formen, bekämpfen kann, treten bedauerlicherweise noch immer die grössten Meinungsverschiedenheiten hervor.

Einerseits begegnet man der Auffassung der Deflationisten, welche eine dauerhafte Herabsetzung des allgemeinen Preisniveaus und eine Anpassung von Geldlöhnen, Zinsen, Mieten, Pachten, Staatsausgaben und überhaupt von allen Preisen geringer Flexibilität an das gesunkene Niveau der Grosshandelspreise wünschenswert erachten. Dieser Standpunkt findet namentlich in den Ländern mit effektiver Goldwährung, wie Frankreich und Holland, einflussreiche Vertreter. Nach dieser Auffassung wird die zusammengeschrumpfte Produktion sich nach einer drastischen Herabsetzung der Kosten der Unternehmer automatisch wieder ausdehnen. Erweiterung der Geldzirkulation könne nur zur Erhaltung finanziell schwacher Unternehmungen und zu einer ungesunden Lage defizitärer öffentlicher Finanzen führen. Starke und gut fundierte Unternehmungen können auch jetzt in aller Fülle Kredit bekommen, brauchen ihn aber nicht. "Reflationskredite" seien darum in der heutigen Lage durchaus ungesund und deshalb wirtschaftlich unerlaubt.

Dem gegenüber steht die Auffassung der Reflationisten. Diese weisen namentlich darauf hin, dass durch die Deflation als solche eine Reihe von Unternehmungen, die bei stabilem Geldwerte durchaus gesund sein würden, Schwierigkeiten empfinden, und dass man deshalb versuchen müsse, die Fehler des Geldwesens zu korrigieren anstatt das Wirtschaftsleben einem peinlichen und im Grunde nicht notwendigen Anpassungsprozesse zu unterwerfen. Manche Reflationisten befürworten eine Erweiterung der Geldzirkulation, die genügen würde, um die Grosshandelspreise wieder zum Niveau des Jahres 1928 oder 1929 steigen zu lassen, wonach eine Stabilisierung auf diesem Niveau folgen könnte. Namentlich in den angelsächsischen Ländern wird die Ausführung eines grosszügigen Wohlfahrtsplanes zur Erreichung dieses Zieles empfohlen.

Eine Erörterung dieser Fragen ist mir gerade deshalb eine sympathische Aufgabe, weil in meinem eigenen Lande und in den Ländern, die bis jetzt an denselben monetären Prinzipien festgehalten haben wie Holland, eine Reihe von Missverständnissen auf diesem Gebiete zu beseitigen ist.

Wer sich über die Geldfrage eine richtige Auffassung bilden will, muss zunächst feststellen, worin das Ziel der Geldpolitik zu bestehen hat. Das führt sofort zur Frage der Wertbeständigkeit des Geldes. Die Forderung der Wertbeständigkeit wird allgemein anerkannt. Was darunter jedoch zu verstehen ist, darüber gibt es leider wieder grosse und prinzipielle Meinungsverschiedenheiten. Eine Stellungnahme zu diesem Problem ist deshalb notwendig.

Wenn man vom Gelde verlangt, dass es wertbeständig sein soll, so geschieht das wohl zunächst deshalb, weil das Geld ein zuverlässiges Tauschmittel sein muss mit Bezug auf alle wirtschaftlichen Verhältnisse, die sich über einen gewissen Zeitraum erstrecken; ein Tauschmittel, das nicht zuverlässig ist, führt zu einer Bevorzugung gewisser Gruppen in der Gesellschaft unter gleichzeitiger Benachteiligung anderer Gruppen, mit allen sich daraus für das Wirtschaftsleben ergebenden Gleichgewichtsstörungen. Und in zweiter Linie fordert man Wertbeständigkeit, damit die Wirtschaft eine zuverlässige Rechnungseinheit erhalte in allen denjenigen Fällen, in welchen entweder in einem bestimmten Augenblicke oder mit Bezug auf eine längere Periode die verschiedenen Güter und Dienste mit einander vergleichbar gemacht und deshalb auf einen gemeinsamen Nenner reduziert werden müssen.

Diese Postulate werden nun vom Gelde befriedigt, wenn sich in einer Geldwirtschaft die Preise aller Güter und Dienste in demselben Verhältnis zu einander bilden, wie dies bei einer reibungslosen Naturalwirtschaft der Fall sein würde, bei einer Naturalwirtschaft also, wo jeder Teilnehmer im Tauschverkehr dasjenige für die von ihm dargebotene Leistung bekommen würde, was der jeweiligen Wirtschaftslage reell entsprechen würde. Erfüllt das Geld seine Rolle in dieser Weise, so trägt es einen "neutralen" Charakter. Es vermittelt den Tauschverkehr in einer Weise, in welcher seine Vermittlung die Preisverhältnisse nicht stört, sondern dieselben gerade in der wirtschaftlich richtigen Weise zum Ausdruck bringt.·In einem derartigen "neutralen" Gelde können alle langfristigen Verträge ruhig abgeschlossen werden, und als Rechnungseinheit wird es seiner Aufgabe völlig gewachsen sein.

Es fragt sich nun aber, ob sich in dem Wirtschaftsleben, mit welchem wir tatsächlich zu tun haben, ein brauchbarer Massstab für die Neutralität des Geldes feststellen lässt. Diese Frage kann bejahend beantwortet werden. Angesichts des begrenzten Umfanges dieses Artikels, an welchen ich mich jetzt begreiflicherweise zu halten habe, muss ich mich auf eine ganz kurze Auseinandersetzung meines Standpunktes beschränken. Nach meiner Auffassung ist das Geld "neutral," wenn seine Kaufkraft, gemessen an einem *allgemeinen* Index, stabil bleibt. Diesem allgemeinen Index sollen prinzipiell die Preise aller Güter und Dienste zu Grunde gelegt werden, welche gegen Geld gehandelt werden, wobei so viel wie möglich jeder Preis auf Grund des gehandelten Quantums gewogen werden muss. Ich bin mir völlig darüber klar, dass ein derartiger Index nicht fehlerlos ist; er gibt aber nach menschlichem Ermessen das beste Mittel, um die Neutralität des Geldes annähernd genau feststellen zu können.

Will man in der Geldpolitik ein neutrales Geld erreichen, so hat das in der üblichen Weise zu geschehen, d.h. Erweiterung der Geldschöpfung bei steigendem, Einschränkung derselben bei sinkendem Index.

Einige Beispiele mögen das obenstehende erläutern. Nehmen wir einmal an, dass in einer gewissen Periode die Produktion eines Gutes zunimmt, während der Preis eines jeden auf den Markt gebrachten Exemplares im gleichen Verhältnis zu dieser Zunahme sinkt. Die Elastizität der Nachfrage ist also gleich der Einheit. In diesem Falle wird sich nach der oben angegebenen Methode der Index nicht ändern, weshalb auch die Geldschöpfung keiner Veränderung unterzogen zu werden braucht. Das ist unter den vorausgesetzten Bedingungen auch wohl selbstverständlich. Die Produzenten des betreffenden Gutes werden zusammen dieselbe Geldsumme für ihre Produkte empfangen wie zuvor, und die Konsumenten reagieren auf das vergrösserk Angebot durch Aufnahme desselben gegen genau dieselbe Geldsumme, welche sie auch früher zu zahlen gewohnt waren. Daraus wird gewöhnlich keinerlei Störung der Wirtschaft hervorgehen. Würde die Geldpolitik hier aktiv eingreifen, z. B. in der Absicht, den Preis dieses Gutes, der ja pro Einheit gesunken ist, wieder zu erhöhen, so würde das in diesem Falle zu einer Reihe inflationistischer Störungen führen.

Nimmt dagegen die Produktion eines Gutes bei unelastischer Nachfrage zu, so wird bei den Konsumenten des betreffenden Gutes eine gewisse Kaufkraft frei. Wird diese Kaufkraft anderswo angewandt, so lässt sich eine Störung der Wirtschaft im allgemeinen vermeiden oder doch sehr beschränken. Die Produzenten des Gutes, für welche die Nachfrage unelastisch ist, werden sich wahrscheinlich zum Teil anderen Produktionszweigen zuwenden, und zwar denjenigen, in welchen sich jetzt die neue Nachfrage der Konsumenten entwickelt hat. In dieser Weise wird sich nach einer gewissen Uebergangszeit ein neues Gleichgewicht erreichen lassen. In diesem Falle wird der allgemeine Index des Geldwertes stabil bleiben. Der Rückgang dieses Indexes, der durch den Preisfall des Gutes mit unelastischer Nachfrage verursacht werden würde, wird kompensiert durch die Preissteigerung, die anderswo in der Wirtschaft stattfinden wird.

Wird jedoch die freie Kaufkraft der Konsumenten aus irgendeinem Grunde stillgelegt, so sinkt der Index; es entsteht eine *Deflation*, welche eine gewisse monetäre Korrektur erfordert, auf welche ich später näher eingehen werde.

Die umgekehrte Lage — zunehmende Produktion von Gütern mit elastischer Nachfrage — ist charakteristisch für Hausseperioden. Besteht bei gesteigerter Produktion von Gütern, die einer unelastischen Nachfrage begegnen, die Gefahr, dass die frei gewordene Kaufkraft der Konsumenten stillgelegt wird, und eine Deflation entsteht, so begegnet man bei zunehmender Produktion von Gütern mit elastischer Nachfrage der Gefahr, dass die Entwicklungschancen der neuen Produktion eine Erweiterung der Geldschöpfung veranlassen, sodass die Steigerung des Indexes als Folge der Zunahme des Absatzes von Gütern des vergrösserten Produktionszweiges nicht kompensiert wird durch eine anderswo stattfindende Preissenkung, und eine *Inflation* entsteht. Denn es kann leicht vorkommen, dass zur Befriedigung der elastischen Nachfrage einer bestimmten Gruppe von Konsumenten Kredit aufgenommen wird und die Geldzirkulation zunimmt, während die Nachfrage nach anderen Gütern die gleiche bleibt.

Aus dem obenstehenden geht hervor, dass die Bewegung eines allgemeinen Geldwertindexes mit den Bewegungen der Indexzahlen einzelner Güter oder Gütergruppen durchaus nicht parallel zu verlaufen braucht. Im Gegenteil, in einer Periode zunehmender Produktion von Gütern mit elastischer Nachfrage ist es sehr wohl möglich, dass eine Inflation im oben angegebenen Sinne stattfindet bei tatsächlicher Senkung jedes Einzelpreises. Sicher ist, dass die vielfach angewandten Grosshandelsindexzahlen an sich nicht genügen, um von der Wertbeständigkeit des Geldes ein zuverlässiges Bild zu geben, erstens, weil sie in den meisten Fällen ungenügend gewogen werden (das zeigt sich namentlich in den Fällen, in welchen Vorräte künstlich vom Markte fern gehalten werden, um den Preis hoch zu halten), und zweitens, weil vielfach ausserhalb des Kreises der Grosshandelspreise Preisverschiebungen stattfinden, die mit den Bewegungen des Grosshandelsindexes nicht parallel verlaufen. Beispielsweise möchte ich in dieser Beziehung auf den Lauf des Grosshandelsindexes einerseits, denjenigen des von Snyder und anderen berechneten "general index" andererseits in den Vereinigten Staaten während der letzten Hausse verwiesen.

In den meisten Ländern wartet die Aufgabe der Feststellung eines allgemeinen Geldwertindexes noch auf ihre Erfüllung. Hätte man in der vergangenen Konjunkturwelle eher die Bewegung der verfügbaren allgemeinen Indices beachtet und sich in denjenigen Ländern, in welchen derartige Indices fehlen, darum bemüht die hier bestehende statistische Lücke auszufüllen, so hätte das sicher in konjunkturpolitischer Hinsicht zu besseren Ergebnissen führen können, als es tatsächlich dank einer übermässigen Beachtung der in dieser Periode sehr stabilen Indexzahlen der Grosshandelspreise der Fall war.

Wenn die Geldpolitik darauf gerichtet sein soll, das Geld "neutral" zu halten, so haben die Leiter dieser Politik dafür zu sorgen, dass die Geldschöpfung bei steigendem "general index" eingeschränkt wird, und dass sie bei sinkendem Index in effektiver Weise vergrössert wird.

Im allgemeinen kann man sicher sagen, dass die erstgenannte Aufgabe die leichtere von den beiden ist. Zwar gibt es bei der heutigen Regelung des Geld- und Bankwesens in den meisten Ländern noch gewisse Schwierigkeiten, die überwunden werden müssen, bevor man an die effektive Stabilisierung eines allgemeinen Indexes bei einer künftigen Hausse denken könnte. Innerhalb eines jeden einzelnen Landes wäre zur Erreichung dieses Zieles eine strenge Zentralisation der Geldschöpfung notwendig. Weiter könnte unter dem System der Goldwährung die Stabilisierungspolitik eines einzelnen Landes leicht von inflationistischen Bestrebungen anderer Länder durchkreuzt werden; deshalb ist, wenn man eine Stabilisierungspolitik auf Grund der Goldwährung betreiben will, weitgehende internationale Zusammenarbeit notwendig. Ich komme darauf später noch zurück.

Immerhin, das Problem der Neutralisierung des Geldes und der Stabilisierung des allgemeinen Geldwertindexes bedeutet für die Hausse *Krediteinschränkung*, welche unter den genannten Umständen sicher zu erreichen ist. Das wird auch meistens wohl zugegeben. Viel schwieriger ist es aber, mittels einer *Krediterweiterung* eine Deflation wieder zu beseitigen, namentlich wenn man dabei in einer Lage ist, in welcher wichtige Produkte mit unelastischer Nachfrage überproduziert worden sind. Gerade in der heutigen Depression zeigt sich dieser Fall sehr deutlich. Die quantitativ nicht besonders grosse, für die Marktverhältnisse aber äusserst wichtige Ueberproduktion verschiedener Agrarprodukte hat zu einem rapiden Preissturz geführt, und das Problem der Mobilisierung der dadurch bei den Konsumenten freiwerdenden Kaufkraft in aller Schärfe hervortreten lassen. Dieses Problem wartet noch immer auf seine Lösung. Um seine Schwierigkeiten und die verschiedenen Möglichkeiten, die sich hier eröffnen, richtig zu würdigen, will ich an Hand einer einfachen Abstraktion — von welcher der Uebergang zur Wirklichkeit jedem Leser leicht fallen dürfte — die charakteristischen Merkmale einer der heutigen Deflationssituationen auseinandersetzen und auf Grund davon die Möglichkeiten der Bekämpfung der Deflation durch systematische Erweiterung der Geldzirkulation, also im Wege der Reflation, einer näheren Betrachtung unterziehen.

Nehmen wir ein ganz einfaches Beispiel und stellen wir uns zwei Länder vor, von denen das eine sich mit Landwirtschaft, das andere sich mit Industrie befasst. In beiden Ländern findet ein Teil der Produkte auf dem Inlandsmarkt Absatz, während der Rest im anderen Lande verkauft wird. Nehmen wir weiter an, dass beide Länder eine Goldwährung haben, und dass auf der Goldbasis ein gewisses Quantum Kreditgeld in Form von Banknoten oder Giralgeld in Umlauf gebracht worden ist, dass der Geldwert in beiden Ländern, gemessen an dem allgemeinen Index, eine Zeit lang stabil geblieben ist, dass nun aber zu einem gewissen Zeitpunkte, z. B. infolge einer Verbesserung der landwirtschaftlichen Produktionstechnik, der Umfang des Angebotes landwirtschaftlicher Erzeugnisse steigt, und dass schliesslich infolge der Konkurrenz zwischen den Bauern und der Unelastizität der Nachfrage der Preis der Agrarprodukte akut fällt und also das Geldeinkommen der Bauern sinkt.

Unter diesen Umständen werden die Bauern nicht länger im Stande sein, die Ausfuhrprodukte des Industrielandes im bisherigen Umfang zu kaufen. Möglicherweise entstehen auch Schwierigkeiten bei der Zahlung von Zinsen und Amortisationen etwaiger vom Agrarlande im Industrielande aufgenommenen Kredite. Namentlich im letztgenannten Falle wird Gold vom Agrarland zum Industrieländ fliessen, was wieder die Goldwährung des Agrarlandes in Gefahr bringt. Auch im Industrielande selbst entstehen Störungen, da ja der Absatz von Industrieprodukten auf dem Auslandsmarkt teilweise oder ganz verloren geht.

Wenn diesem Prozesse nicht rechtzeitig und energisch entgegengearbeitet wird, so entsteht jetzt im Industrielande eine äusserst gefährliche Deflation. Die Schwierigkeiten des Agrarlandes einerseits, die Bedrängung der einheimischen Industrie andererseits, werden bei den Geldgebern Misstrauen verursachen. Ausstehende und fällige Kredite werden zurückgefordert und das in dieser Weise von den Gläubigern empfangene Geld wird stillgelegt werden. Der Umfang des Kredites und des daraus entstehenden Kreditgeldes wird einschrumpfen, die Umlaufsgeschwindigkeit des Geldes wird abnehmen. Die durch den Preisfall der Agrarprodukte im Industrielande frei gemachte Kaufkraft wird nicht anderswo verwendet werden, der allgemeine Index sinkt und die Deflation ist im vollen Gange.

Es handelt sich in diesem Falle in erster Linie darum, die Kaufkraft im Industrielande vor der Immobilisation zu behüten und die dort vorhandenen reflationistische Möglichkeiten sofort auszunutzen. Das kann in verschiedener Weise geschehen.

Die erste Möglichkeit um die entstandenen Schwierigkeiten aufzuheben wäre die, dass das Industrieland dem Agrarlande einstweilen seine Produkte auf Kredit weiterliefert in der Erwartung, dass das Agrarland die Produktion der überproduzierten Güter sofern einschränken wird, bis diese wieder rentabel wird. Die im Agrarlande freiwerdenden Produktivkräfte können in diesem Falle entweder in neuen Produktionszweigen verwertet werden, oder einstweilen stillgelegt werden. Das letztere wäre zwar für den allgemeinen Wohlfahrtszustand der Menschheit weniger empfehlenswert, als das erstere, aber immerhin besser als eine Kontinuation der Uebererzeugung von Agrarprodukten. Selbstverständlich erfordert die Bekämpfung der Ueberproduktion mittels Stillegung der ueberflüssigen Produktionskräfte ein freiwillig von den Produzenten angenommenes oder zwangsweise vom Staate auferlegtes Restriktionsschema.

Eine derartige Lösung ist theoretisch keineswegs unmöglich, in der Praxis jedoch schwer zu erreichen. In dem Industrielande setzt diese Lösung einen gut und reibungslos funktionierenden Kreditorganismus voraus, eine Voraussetzung, die nur selten erfüllt ist. Im Agrarlande wäre in diesem Falle eine glatte Anpassung der Produktion an die neuen Verhältnisse notwendig, eine Voraussetzung, welche in der Praxis des Wirtschaftslebens noch viel schwieriger zu realisieren ist, als die erstgenannte. Eine Ueberproduktion in der Landwirtschaft erstreckt sich, namentlich wenn sie aus technischen Aenderungen der Produktionsmethoden entstanden ist, meistens über eine ganze Reihe von Ländern. Ist es schon schwierig, in einem einzigen Lande eine Neu-Orientierung der Landwirtschaft schnell durchzuführen, ist sie in einer mehr oder weniger zahlreichen Gruppe von Ländern fast unmöglich in kurzer Zeit zu erreichen. Die Erfahrungen in der heutigen Getreidefrage sind hier überaus lehrreich.

Sehr oft sieht man sogar, dass die Lage noch verschlimmert wird durch die Schutzzoll- und Premienpolitik der Agrarstaaten; statt Einschränkung der Ueberproduktion und Ergreifung neuer Produktionszweige findet eine Verlängerung und manchmal sogar eine Vergrösserung dieser Ueberproduktion statt, was die deflationistischen Tendenzen in der Welt nur verstärken kann.

Sollte die erste von mir behandelte Lösung gelingen — was, wie gesagt, sehr wenig wahrscheinlich ist — so würde das Geld im Industrie- wie im Agrarlande seinen "neutralen" Charakter behalten. Im Industrielande treten neben die im Preis gesunkenen Agrarprodukte die Effekten oder die sonstigen Schuldscheine, gegen Abgabe welcher das Agrarland die Industrieprodukte einstweilen auf Kredit zu kaufen fortfährt. Werden diese Effekten im allgemeinen Geldwertindex verarbeitet, so wird dieser stabil bleiben oder höchstens zeitweise eine Senkung zeigen. Eine analoge Entwicklung vollzieht sich im Agrarlande; hier wird der Index — möglicherweise nach einer zeitweisen Senkung — wieder steigen, sobald die Ueberproduktion zu Ende kommt und eventuell andere Produktionszweige ergriffen worden sind.

Ich komme jetzt zu einer zweiten Möglichkeit. Wenn im Agrarlande eine baldige Anpassung nicht in Aussicht gestellt werden kann, so kann sich das Industrieland einen neuen Absatzmarkt für seinen jetzt eingetretenen Ueberschuss an industriellen Erzeugnissen suchen, und zwar entweder im Auslande oder im eigenen Lande. Der Absatz im Ausland lässt sich manchmal schwer erreichen, da ja auch andere Industrieländer mit den gleichen Schwierigkeiten zu kämpfen haben und deshalb die internationale Konkurrenz stark zunehmen wird. Dagegen ist aber auf dem Inlandsmarkt, wie wir wissen, eine gewisse freie Kaufkraft entstanden, da ja die Konsumenten die eingeführten Agrarprodukte billiger bekommen als zuvor. Diese Kaufkraft muss nun ausgenutzt werden.

Dazu wird jedoch aller Wahrscheinlichkeit nach etwas Neues produziert werden müssen. Sehr wenig wahrscheinlich ist es ja, dass diejenigen, die jetzt ihre Lebensmittel billiger erhalten, bereit wären gerade dasjenige zu kaufen, was vorher im Agrarlande seinen Absatz fand. Eine gewisse Umschaltung der einheimischen Produktion auf neue Produkte wird also wohl notwendig sein.

Es ist bekannt, dass sich eine derartige Umschaltung der Produktion in den modernen Industriestaaten nicht ohne Schwierigkeit vollzieht. Vielfach verfügt man nicht sofort über das notwendige Quantum geschulter Arbeitskraft, während auch bei jeder neuen Produktion dem Kapitalisten eine gewisse Risikopremie bezahlt werden muss. Hieraus folgt, dass die Arbeit sich in der Uebergangszeit mit einem niedrigeren Lohn begnügen muss und dass sich eine Verschiebung der Verteilung zugunsten des Kapitales vollziehen muss. Eine glatte Anpassung an die neuen Verhältnisse wird sich deshalb ohne eine Erniedrigung der Geldlöhne nicht erreichen lassen. Das is aber bekannterweise in Industrieländern mit stark entwickeltem Gewerkschaftswesen eine heikle Angelegenheit. Ferner muss auch hier der Kreditorganismus Hilfe leisten, was allerdings von einer entgegenkommenden Haltung der Arbeiterschaft sehr erleichtert werden kann. Und schliesslich muss der Staat eine vernünftige Steuerpolitik befolgen und die neuen oder die alten, sich umschaltenden Unternehmungen in der Uebergangszeit nicht zu schwer belasten.

Die Erfahrung lehrt uns leider manchmal, dass diese zur Vermeidung einer Deflation notwendigen Bedingungen nicht oder nur teilweise und vielfach zu spät erfüllt werden, so dass der oben erwähnte Deflationsprozess unvermeidlich eintritt.

Im oben behandelten Beispiel wurde nur das Verhältnis zwischen einem Agrar- und einem Industrielande besprochen. Man kann aber denselben Gedankengang überall da anwenden, wo sich, aus welchem Grunde es auch sein mag, plötzlich ein Ausfall an Kaufkraft bei einer gewissen Gruppe von Teilnehmern am Tauschverkehr bemerkbar macht. Ich habe nur deshalb das Beispiel der beiden Länder gewählt, weil in diesem Falle die Störungsursachen besonders deutlich hervortreten.

Es stellt sich nun die Frage, ob sich eine Deflation, entstanden in der vorher auseinandergesetzten Weise und nicht vom "freien Spiel" der wirtschaftlichen Kräfte korrigiert, auf dem Wege einer vom Staate geführten Politik bewusster Vermehrung des Geldumlaufes bekämpfen lässt.

Manche Wissenschaftler und praktische Geldpolitiker sehen das Unerwünschte einer Deflation sehr wohl ein, meinen jedoch — wie schon im Anfang dieses Artikels gesagt — dass sich dagegen auf dem Wege der Krediterweiterung nichts machen lässt. Was die Geldpolitik betrifft, so solle man sich nach dieser Auffassung auf eine Bekämpfung jeder Inflation in Hausseperioden beschränken; eine Deflation lasse sich aber, wenn sie einmal eingetreten ist, mit monetären Mitteln nicht korrigieren.

Die Anhänger dieses Standpunktes stützen sich dabei auf die Erwägung, dass man eine Erweiterung der Geldzirkulation zur Bekämpfung einer Deflation ja nur erreichen kann auf dem Wege additioneller Kreditgewährung und dass man dazu gute und solide Schuldner braucht. Diese wären entweder in der privaten oder in der öffentlichen Wirtschaft zu suchen. In der privaten Wirtschaft wird man sie aber kaum finden. Sofern die privaten Unternehmungen noch kreditwürdig sind, brauchen sie in der Regel gar kein neues Geld, weil ihre Lage äusserst liquide ist. Und wenn private Unternehmungen während einer Deflation neues Geld brauchen, ist ihre Lage meistens so kritisch und bedrängt, dass eine additionelle Kreditgewährung volkommen ungerechtfertigt wäre. Es empfehle sich also nach der hier besprochenen Auffassung eine Politik drastischer Erniedrigung des Kostpreises der Unternehmer, damit dieser sich den wegen der Deflation gesunkenen Preisen der Erzeugnisse anpasse und die Produktion auf der Grundlage eines niedrigeren Preisniveaus wieder rentabel werde.

Was den öffentlichen Haushalt betrifft, da stehe es nach dieser Auffassung meistens nicht besser. Staat und Gemeinden kämpfen in der Deflation mit Defizits und müssen deshalb in erster Linie ihr Budget ins Gleichgewicht bringen. Gelingt dies, so könne Kreditgewährung an den öffentlichen Haushalt wieder erwogen werden, nicht eher. Aber dann werde sich zeigen, dass gar keine Frage mehr zu lösen sei. Ein Staat mit bilanziertem Etat werde leicht das gehortete Geld wieder aus seinem Refugium herauslocken, ebenso wie ein Unternehmen, das ohne Verlust arbeitet und z.B. für Expansionszwecke Kredit braucht.

Man bringe also zunächst das Gleichgewicht zwischen Einkommen und Ausgaben in dem privaten und öffentlichen Haushalt zu Stande und man werde sehen, wie leicht die Geldschöpfung und die Umlaufsgeschwindigkeit des Geldes sich wieder von ihrem niedrigen Stande erheben werden.

Diese Auffassung ist nach meiner Meinung unhaltbar und eine sich darauf gründende praktische Wirtschaftspolitik scheint mir für den allgemeinen Wohlstand äusserst gefährlich. Sobald nämlich eine Deflation einen derartigen Umfang angenommen hat, dass sowohl der Umfang der Kreditgewährung wie die Umlaufsgeschwindigkeit des Geldes unterhalb eines Niveaus sinken, der sich bei Rückkehr des Vertrauens als zu niedrig erweisen wird, so bedeutet eine Anpassung von Staatsausgaben, Löhnen, usw., an den gestiegenen Geldwert, wie dieser momentan geworden ist, einen relativ zu starken Abbau; erniedrigt man nämlich Löhne, Staatsausgaben usw. auf das aktuelle Deflationsniveau, so wird sich zeigen, dass sich darauf die Geldzirkulation in der Tat, wie die Deflationisten richtig bemerken, steigern wird als Folge einer vergrösserten Kreditgewährung und einer Rückkehr des Vertrauens, dass dann aber eben wegen dieser Zunahme der Geldzirkulation eine gewisse Reflation stattfindet, welche wieder eine Erhöhung von Löhnen, Staatsausgaben, usw. rechtfertigt. Mit anderen Worten, eine Senkung aller Preise und eine vollkommene Anpassung an das Deflationsniveau führt nach vollendetem Anpassungsprozesse notwendig wieder zu einer Aufwärtsbewegung, und es wäre für eine ruhige Entwicklung der Volkswirtschaft durchaus wünschenswert, wenn man die Hebung des Tiefstandes der Deflation mittels einer rechtzeitigen und effektiven Reflationspolitik antizipieren könnte. Der Anpassungsprozess an eine Deflation erfordert bekannterweise manche Opfer: Untergang einer Anzahl von Unternehmungen, die ihren Kostpreis nicht rechtzeitig erniedrigen können, Zunahme der Arbeitslosigkeit, usw. Ein Teil dieser Opfer lässt sich vermeiden, wenn man die Deflation mittels einer Reflationspolitik zu bekämpfen weiss.

Es fragt sich nun, welche Prinzipien man dabei zu befolgen hat. Ich glaube die Frage, um welche es sich in dieser Beziehung handelt, folgendermassen formulieren zu können: weil es sich bei der Bekämpfung der Deflation in erster Linie handelt um eine Antizipation auf die Kaufkraft, die momentan latent bleibt und stillgelegt ist, aber seinerzeit zur Anwendung kommen wird, so soll so genau wie möglich festgestellt werden, an welcher Stelle des Wirtschaftslebens diese Anwendung stattfinden wird.

Da kann man nun sagen, dass in den meisten Fällen angenommen werden darf, dass diese latente Kaufkraft sich sowohl dem öffentlichen Haushalte wie der privaten Wirtschaft zuwenden wird. Betrachten wir zuerst den Staatshaushalt.

Im Staatshaushalte gibt es drei Reflationsfragen. Die erste betrifft die Herstellung des Gleichgewichts im Budget und den Umfang, in welchem der Staat seine Ausgaben zu vermindern hat. Ist völlige Bilanzierung des Budgets notwendig oder ist es innerhalb gewisser Grenzen erlaubt, ein budgetäres Defizit mittels lang- oder kurzfristiger Anleihen, eventuell sogar durch Inanspruchnahme der Notenbank oder durch Ausgabe von Staatsgeld zu überbrücken?

Es versteht sich, dass es sich hier nur um temporäre Massnahmen handeln kann. Niemand wird eine Finanzpolitik, die mit fortwährenden Defizits zu kämpfen hat, verteidigen. Im Grunde gibt es nur eine einzige gesunde Finanzpolitik, die darin besteht, dass in Hausseperioden Ueberschüsse gebildet werden, damit in Depressionsperioden ohne Defizit weitergearbeitet werden kann. Wenn aber dennoch in einer Periode abnehmender Geldzirkulation und nachweisbarer latenter Kaufkraft ein Defizit entsteht, so erscheint es durchaus erlaubt, bis zu einem gewissen Betrage die Rückkehr des gehorteten Geldes zu antizipieren, falls notwendig, durch additionelle Geldschöpfung.

Die Grenzen dieser Geldschöpfung lassen sich in der Praxis gewöhnlich nur annähernd bestimmen. Deshalb soll von dieser Art unfreiwilliger Reflationsbestrebungen nur mit der grössten Vorsicht Gebrauch gemacht werden. Die Erfahrung hat in vielen Fällen gelehrt, dass ein mässiger "Defizitsreflationismus" ohne Gefahr ist; es braucht wohl kaum betont zu werden, dass "Defizitsreflation" leicht in "Defizitsinflation" übergehen kann und deshalb nur von Staaten mit genügender Selbstbeherrschung betrieben werden kann.

Die zweite Möglichkeit reflationistischer Politik betrifft die Ausführung öffentlicher Arbeiten. Mit Bezug auf die in dieser Hinsicht von den Reflationisten gestellten Forderungen, muss man einen scharfen, Unterschied machen zwischen der Beschleunigung der Ausführung derjenigen Arbeiten, welche als das normale Minimumprogramm des betreffenden Staates oder der betreffenden Gemeinde betrachtet werden können, und die Ausführung eines speziell zur Bekämpfung der Deflation aufzustellenden Zusatzprogrammes.

Auf die erstgenannten öffentlichen Arbeiten kann die bekannte Klausel des römischen Rechtes: "*die certo an, incerto quando*" angewandt werden. Mit Sicherheit kann angenommen werden, dass sie einmal zur Ausführung kommen werden, nur der Zeitpunkt der Ausführung steht noch nicht fest. Eine beschleunigte Ausführung ist hier fast immer zu empfehlen; sie vermindert die Arbeitslosigkeit und das vom Staate aufgenommene Geld wird entweder dem aufgespeichertem Gelde entnommen, in welchem Falle die Umlaufsgeschwindigkeit grösser wird, oder es wird neu geschaffen, in welchem Falle die Geldquantität zunimmt.

Es versteht sich übrigens, dass die Beschleunigung der Ausführung öffentlicher Arbeiten als Reflationsmassnahme mit einer Einschränkung der öffentlichen Arbeiten nach Beendigung der Deflation verbunden werden muss. Sonst würde diese Beschleunigung zu einer Ueberbelastung der Staatsausgaben führen. Das Leitmotiv bei der Ausführung öffentlicher Arbeiten soll also sein: beschleunigte Ausführung in der Depression, Verlangsamung des Tempos in der Hausse. Die Erfahrung lehrt leider manchmal, dass auch diese Regel guter Konjunkturpolitik von Staat und Gemeinden aus dem Auge verloren wird.

Ganz anders muss in einer Deflationsperiode die Ausführung eines Zusatzprogrammes öffentlicher Arbeiten beurteilt werden. Es handelt sich hier um öffentliche Arbeiten, an welche ohne Deflation überhaupt nicht gedacht wäre. Sie verkörpern also eine Art künstlicher Arbeitsbeschaffung. Eine derartige Politik ist m.E. nicht zu verteidigen. Die Reflation lässt sich nur rechtfertigen als Antizipation auf eine spätere Rückkehr gehorteten Geldes und einer späteren Erweiterung der Geldschöpfung. Insofern nun die Reflationsmassnahmen den Antizipationscharakter behalten, sind sie gesund und empfehlenswert. Bei der Ausführung eines *ad hoc* aufgestellten Zusatzprogrammes, handelt es sich aber gar nicht um Antizipation, sondern um die Ausführung von Werken von zweifelhaftem Nutzen, zu welcher Ausführung der Staat mit Schulden belastet wird, denen praktisch niemals extra Einnahmen gegenüber stehen. Das kann der Wohlfahrt des betreffenden Landes nie zugute kommen. So sehr ich der Beschleunigung der Ausführung des gewöhnlichen Programmes öffentlicher Arbeiten beistimme, so gefährlich scheint mir der Gedanke, — besonders in England, aber auch anderswo, z.B. in Holland namentlich von radikalen Politikern geäussert — dass ein grosszügiger Wohlfahrtsplan allerhand öffentlicher Arbeiten, die man sonst nie ausgeführt hätte, dem Sanierungsprozess des Wirtschaftslebens dienlich sein könnte.

Ich komme jetzt zu der Reflationspolitik mit Bezug auf die private Wirtschaft. Auch da hat der Staat eine Aufgabe zu erfüllen.

Zunächst gibt es in jeder Deflation eine Reihe von Unternehmungen, die sich dem allgemeinen Falle des Geldwertes nicht schnell genug anpassen können und deshalb in Schwierigkeiten geraten, bei Hebung des Preisniveaus aber sofort wieder auf gesunder Basis stehen werden. Wenn auch in jeder wirtschaftlichen Depression eine gewisse Anzahl von Unternehmungen verschwinden muss, so wäre es doch durchaus falsch, wenn man dieser Gruppe schwacher und ungesunder Unternehmungen ohne Unterschied alle Unternehmungen einreihen wollte, welche überhaupt die Schwierigkeiten der Deflation empfinden; eine Anzahl der Unternehmungen könnte ja mittels zeitweiser Notkreditgewährung die Deflationsperiode überbrücken, um nachher wieder auf gesunder Grundlage weiter zu arbeiten. Nur wenn man annehmen sollte, dass einer Deflation nie wieder eine Erhebung der Kaufkraft folgen würde, wäre es angebracht, solche Unternehmungen untergehen zu lassen. Hat man aber Grund anzunehmen, dass sich seinerzeit die Umlaufsgeschwindigkeit und die Geldschöpfung wieder vergrössern werden, so empfiehlt sich auch hier eine Reflationspolitik.

Der private Kredit versagt in diesem Falle, was sehr begreiflich ist. Die privaten Banken können selbstverständlich das Risiko einer Bekämpfung der Deflation nicht übernehmen, so erwünscht es auch sein möchte, wenn sie sich dazu in wechselseitiger Zusammenarbeit entschliessen könnten. Deshalb muss hier der Staat eingreifen; die Gründung von Notkreditorganisationen ist im Prinzip in einer Deflationsperiode sicher berechtigt. Es versteht sich ohne weiteres, dass bei der Gründung derartiger Notorganisationen von vornherein gewarnt werden muss gegen eine unterschiedslose Unterstützungspolitik notleidender Unternehmungen. Jeder Fall soll für sich beurteilt werden und die Bewilligung des Notkredites soll angewandt werden als Machtmittel, um etwaige Uebelstände zu beseitigen und erwünschte Reorganisationsmassnahmen zu erzwingen. Eine Notkreditorganisation, die diese Richtlinien aus dem Auge verliert, würde sich in der Tat dem Vorwurf aussetzen, in erster Linie schwache und ungesunde Unternehmungen zu unterstützen; sie würde nicht an der Sanierung der Volkswirtschaft mitwirken, sondern den Grund neuer Rückschläge vorbereiten. In jedem einzelnen Falle soll also genau untersucht werden, ob es sich um ein Unternehmen handelt, welches bloss durch den Tiefstand der Deflation hindurch geholfen werden muss, oder ob eine mehr oder weniger eingreifende Reorganisation notwendig ist. Das hat man, wie es scheint, bei der Reflationspolitik in den Vereinigten Staaten aus dem Auge verloren. Uebrigens braucht wohl kaum erwähnt zu werden, dass eine vom Staate zu reflationistischen Zwecken gegründete Notkreditorganisation sich sofort zurückziehen muss, wenn der private Kredit wieder regelmässig zu fliessen anfängt.

Wo jede Deflation zu einer gewissen Neugruppierung der Produktion führt, da muss weiter versucht werden, die freiwerdenden produktiven Kräfte so bald wie möglich wieder in den Produktionsprozess einzuschalten. Das lässt sich nur mittels Gründung neuer Unternehmungen erreichen. Ich habe schon oben auseinandergesetzt, weshalb das private Kapital vielfach nicht bereit ist um sofort neue Wege einzuschlagen. Technische Möglichkeiten gibt es immer in grosser Menge, die wirtschaftliche Verwirklichung derselben begegnet jedoch in Deflationsperioden den bekannten Schwierigkeiten: geringe Flexibilität der Löhne und vielfach zu schwere öffentliche Lasten. Der Staat kann hier Hilfe leisten, erstens durch Ausübung eines gewissen Druckes auf die Löhne, was ihm ja mittels Erniedrigung der Arbeitslosenunterstützung leicht fallen würde, durch eine vernünftige Politik mit Bezug auf die fiskalischen und sozialen Lasten, und schliesslich durch Kreditgewährung zur Förderung neuer Unternehmungen. In Analogie mit der Handelspolitik kann man diese Kredite "Erziehungskredite" nennen. Unter Umständen braucht der Staat nicht selbst das Geld vorzuschiessen und genügt die Staatsgarantie eines anderswo aufgenommenen Kredites, was selbstverständlich mit Bezug auf das Risiko für den Staat keinen Unterschied macht.

Es versteht sich, dass jede Reflationspolitik in obenerwähntem Sinne ein gewisses finanzielles Risiko für den Staat mit sich bringt. Es kommt mir aber nicht zweifelhaft vor, dass der Schaden einer vernünftigen Reflationspolitik im allgemeinen viel geringer sein wird, als die verheerenden Folgen einer grossen Deflation.

Rein national betrachtet scheint mir also eine Reflationspolitik in einem Lande, wo sich ein Prozess von "hoarding," abnehmender Kreditgewährung und sinkender Umlaufsgeschwindigkeit abspielt, durchaus berechtigt. In einer derartigen Lage befinden sich jetzt viele Länder, für welche also eine Reflationspolitik zu empfehlen ist.

Seitens verschiedener Reflationisten wird, wie anfangs in diesem Artikel gesagt, vielfach der Wunsch geäussert, wieder zum Grosshandelspreisniveau vom Jahre 1928 oder 1929 zurückzukehren. Dieser Wunsch scheint mir weniger berechtigt. Erstens ist ja der Grosshandelsindex nach meiner Auffassung nicht massgebend für den Geldwert, und zweitens ist nicht erwiesen, dass der Grosshandelspreisstand der genannten Jahre wirklich "normal" war. Besser wäre es deshalb, die Deflation zu bekämpfen, bis die Umlaufsgeschwindigkeit und der Umfang der Kreditgewährung eine Höhe erreicht haben, auf welcher man meint zur Stabilisierung des Geldwertes übergehen zu können. Ich glaube kaum, dass es *a priori* gelingen könnte, die Höhe des Geldwertes anzugeben, die dann gelten würde.

Ich komme jetzt zu der Frage, ob eine Reflationspolitik, wie ich sie mit Bezug auf bestimmte Länder und unter bestimmten Umständen, rein national betrachtet, durchaus empfehlenswert erachte, sich mit der Goldwährung vereinigen lässt und ob man bei einer *nationalen Reflationspolitik* eine *internationale Währung*, wie die Goldwährung, aufrechterhalten kann.

In dem Augenblicke, in welchem ich diesen Artikel abschliesse* ist die Goldfrage äusserst unsicher und spekulativ; man wird die Ergebnisse der Weltkonferenz und der Amerikanischen Geldmassnahmen abwarten müssen, bevor man über das Pro und Contra der Goldwährung ein fundiertes Urteil abgeben kann. Ich muss mich darum auf einige Betrachtungen prinzipieller Natur beschränken.

Bekannterweise gibt die Goldwährung an sich keine Garantie eines wertbeständigen Geldes. Die Goldwährung ist eine internationale Währung und kann deshalb nur dann zu einer genügenden Wertbeständigkeit führen, wenn von den Leitern der nationalen monetären Politik international zusammengearbeitet wird, um einerseits eine Senkung des Geldwertes in Hausseperioden, andererseits eine Deflation in Zeiten wirtschaftlicher Depression zu vermeiden. Eine derartige Zusammenarbeit zur Erreichung eines neutralen Geldes ist möglich, wurde bis jetzt aber noch nicht erreicht.

Immerhin hat die Goldwährung gewisse Vorteile. Die Aufrechterhaltung einer Goldwährung gibt in der Praxis des Wirtschaftslebens ein gewisses Gefühl des Vertrauens. Auch die Stabilität der Wechselkurse, die unter dem System der Goldwährung gewährleistet ist, hat Vorteile für den internationalen Handel. Aus diesen rein praktischen Gründen lohnt es sich noch immer zu versuchen, ob nicht ein genügendes Mass internationaler Zusammenarbeit zu erzielen wäre, um die Goldwährung auch mit Bezug auf die Wertbeständigkeit des Geldes in befriedigender Weise funktionieren zu lassen.

Was die Bekämpfung einer internationalen Deflation betrifft, mit welcher ich mich in diesem Artikel hauptsächlich beschäftigt habe, so kann man sagen, dass diese unter der Goldwährung nur möglich ist, wenn das in bestimmten Ländern angehäufte Gold wieder der Kreditgewährung dienlich gemacht und deshalb vor "Sterilisation" behütet wird. Endgültich könnte dieses Problem wohl nur dann gelöst werden, wenn die Notenbanken in den wichtigsten Ländern kraft einer internationalen Konvention gezwungen würden, ihre Surplus-Devisen- und Goldvorräte einem internationalen Zentrum zur Verfügung zu stellen. Solange das nicht geschieht und man andererseits auch nicht darauf rechnen kann, dass eine Notenbank, welche sich in einer Deflation Gold zufliessen sieht, darin Veranlassung finden wird, der Deflation mittels autonomer Krediterweiterung drastisch entgegen zu arbeiten, so setzt sich ein Land, das auf eigene Faust mit einer Reflation anfangen möchte, der Gefahr aus, dass es sein Gold verlierf. Folgen andere Länder dann schliesslich doch noch auf dem Wege der Reflation, so wird die Tendenz des Goldabflusses wieder neutralisiert. Folgen sie aber nicht, so müssen die Leiter der Geldpolitik in einem reflationistisch gesinnten Lande sich die Frage vorlegen, ob man die Reflation wieder aufgeben soll, oder ob man die Stabilität des Wechselkurses der Stabilität des einheimischen Geldwertes zum Opfer bringen will.

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* Geschrieben im April 1933.

Die Antwort wird nicht immer in gleicher Weise lauten können. Wenn z.B. in einer Deflationsperiode die wichtigsten Länder die Goldwährung noch aufrecht erhalten und dann eine bedeutende Ländergruppe plötzlich die Goldwährung aufgibt, wie dies z. B. im Herbste des Jahres 1931 England und Skandinavien taten, so kann das mit Anerkennung der Vorteile, welche ein derartiges Verhalten für diese Länder selbst mit sich bringen kann, dennoch für die Weltlage, und damit für den Auslandshandel dieser Länder schliesslich Schwierigkeiten mit sich bringen, weil das Verlassen der Goldwährung in den anderen Ländern, die sich am Golde festklammern, das allgemeine, für eine Deflationsperiode so typische Misstrauen verstärkt und demzufolge die da bereits herrschende Deflation noch erheblich steigert, was die allgemeine Wiederbelebung der Weltwirtschaft nur hemmen kann. Wenn dagegen — wie das jetzt (April 1933) der Fall ist — nur noch sehr wenige Länder die Goldwährung aufrechterhalten, wenn die Aussichten auf eine internationale Reflationspolitik unter Aufrechterhaltung der Goldwährung minimal geworden sind, und wenn das Verlassen der Goldwährung in einem der Länder, die daran noch festgehalten haben, kaum noch im Stande sein kann das Misstrauen irgendwie erheblich zu steigern, weil dafür das Gebiet der effektiven Goldwährung schon viel zu sehr eingeschrumpft ist, so empfiehlt sich für diese Länder eine Reflationspolitik auf eigene Faust, auch wenn sie dabei die Gefahr laufen würden, viel Gold zu verlieren und am Ende von der Goldwährung abgedrängt zu werden. Insofern solche Ländern in derartigen Umständen die Prinzipien einer gesunden Reflationspolitik beachten, wird ihnen das sicher mehr Nutzen bringen, als die Aufrechterhaltung einer Goldwährung, die einmal international war, es aber nicht mehr ist. Wenn wirklich die Möglichkeit eines internationalen "neutralen" Geldes fehlt, so muss ein nationales "neutrales" Geld einer deflationistischen und für die wirtschaftliche Entwicklung unter diesen Umständen verderblichen Goldwährung vorgezogen werden.

Wollte ich dieses Thema weiter ausarbeiten, so würde ich zu sehr das Gebiet der praktischen Geldfragen betreten, die gerade in einigen Wochen auf der Weltwirtschaftskonferenz behandelt werden sollen und mit Bezug auf welche bei Erscheinen der Festschrift, für welchen dieser Aufsatz bestimmt ist, schon so viel publiziert sein wird, dass eine aprioristische Behandlung meinerseits sinnlos wäre.

Jeder aber, der vom Gelde "Neutralität" verlangt, wird an der vielfach missverstandenen und zu Unrecht verhöhnten Reflationsidée nicht vorüber gehen können. Die Theorie hat auch hier den Weg für den Praktiker vorzubereiten. Für diese Theorie einen bescheidenen Baustein anzutragen, war die Absicht, mit welcher dieser Artikel geschrieben wurde.

"THE SHIFTABILITY THEORY" OF BANK LIQUIDITY

BR. SUVIRANTA, *University of Helsinki*

I. BACKGROUND

ACCORDING to the traditional theory of commercial banking a bank should finance only short-term transactions of commercial character, the term "commercial" being applied either to credit used for purely mercantile purposes or, according to a more liberal interpretation, to all credit extended as "working capital" for trade, industry, and agriculture. The provision of permanent capital should, on the other hand, be left to specialized investment institutions. The logical basis of this theory is that since the liabilities of a deposit bank are subject to payment on demand or on short notice, the assets should consist of cash or paper based upon self-liquidating transactions of short maturity, so that the bank can get possession of its funds quickly if pressed by calls from its depositors.

In America, the orthodox theory of bank liquidity was generally adhered to till about fifteen years ago. Its validity seems never to have been seriously challenged, though some economists put it forward in a somewhat modified form by conceding that a limited amount of investment assets would not necessarily be detrimental for banking conditions, provided that they were of high quality and that the bulk of a bank's assets actually grew out of commercial operations.

The actual development of American banking in the pre-war days was in a striking contrast to the orthodox theory of bank liquidity. No clear-cut lines of demarcation divided the different types of financial institutions from each other: the commercial banks extended credit to all classes of enterprise, industrial and financial as well as commercial; investment banks had frequently commercial banking departments; trust companies engaged in both investment and commercial banking; savings banks, finally, invaded the field of commercial banking and aspired to assume trust functions as well. The result was what has been aptly characterized as the "department-store type" of financial institution, representing at the same time any and all kinds of financial activities.*

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* Cf. Moulton, *The Financial Organization of Society*, Chicago, 1921. Especially the chapter "Integration and Consolidation."

In the case of commercial banks, the growing tendency towards investment banking is well indicated by the following figures compiled by Conant:*

NATIONAL BANKS IN NEW YORK

(In Million Dollars)

	Advances on Securities	Loans on Commercial Paper
October 7, 1886	107·5	146·2
October 6, 1896	162·4	151·8
September 6, 1904 ..	538·3	268·9

Against an increase of 122·7 millions in the total volume of commercial loans there was, during this period, an increase in investment loans of 430·8 millions; the relative share of the commercial loans of the total fell at the same time from 57·6 % to 33·3 %. In subsequent years there was no change in this tendency towards investment banking.

Banking theory and banking practice were thus widely apart in the pre-war days. A legislative attempt to bring them closer together was made by the passing of the Federal Reserve Act in 1913. It was fundamentally based upon the orthodox principles of banking; one of its chief aims being to foster short-term commercial loans and discourage all other types through careful stipulations of what kind of loans would be eligible for rediscounting. As a consequence of circumstances upon which we cannot enter here, not only was this aim of the original Federal Reserve Act frustrated in the following years, but the earlier trend of banking activities became still more accentuated.

II. THE NEW SCHOOL OF BANK LIQUIDITY

1. *Benjamin M. Anderson.* Towards the end of the war, two young American economists came forward with theories which directly challenged the time-honoured principles of bank liquidity. One of them was B. M. Anderson who developed the new theories in his treatise on *The Value of Money.*†

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* Conant, *The Principles of Money and Banking*, New York, 1905, ii, p. 52.

† Anderson, *The Value of Money*, New York, 1917. The summary of Anderson's views, as well as that of other economists referred to below, is given as far as possible in their own words.

Anderson points out that the terms "liquid paper" and "commercial paper" by no means run on all fours. Only that part of commercial loans may be called liquid which can be paid off by the borrower without disappointing his reasonable expectations. If this criterion be applied to the item "other loans and discounts," in which item the bulk of commercial paper is included, it may be well questioned if amongst them could be found items exceeding a fourth of the total which the banks could refuse to renew, even assuming that other things would remain unchanged, so that each transaction could be considered separately.

If, on the other hand, attention is turned to the investment assets, they were rightly called non-liquid on the basis of the facts as Adam Smith knew them. But that has been changed; the modern corporation organization of business, coupled with organized stock exchanges and a large and active body of speculators, has made fixed capital, like road bed, rails, terminals, and bridges, as saleable as the finished product; and anything that is highly saleable can come into the money market. As a consequence of this development, the most perfectly satisfactory sort of bank loans, from the standpoint of liquidity, consists now of stock market collateral loans: they account for the bulk of banking activity, and supply the greatest part of the liquidity of total bank loans.

In times of crisis, it is true, the stock market is first hit, and financial panics are most acutely felt there. But if stock exchange loans lose their liquidity, what of the rest of bank loans? Under a general pressure of liquidation an effort to reduce commercial loans by one-fourth would occasion great embarrassment, even if the market were made up wholly of highly liquid paper (as is not the case).

Anderson draws far-reaching conclusions from the fact that according to his theory modern banking derives its liquidity from the security market. He points out that banks can use liquid investment papers as "secondary reserve," and thus get along with much smaller cash reserves. And he concludes further that the complaint of many farmers, merchants, politicians, and even scientific writers that too much money and bank-credit are at the disposal of Wall Street and other speculators, rests on a misunderstanding of causal relations. The financial and speculative centres do not, by using a large amount of bank-credit, take just that much away from ordinary business. Rather money and credit used by speculators, bill brokers, dealers in foreign exchange, investment bankers, etc., enormously increase the lending power of the banks for all purposes, by supplying the liquidity for bank assets, and so making possible loans on non-liquid assets.

Not all investment activities of the banks are, however, regarded as equally desirable; a distinction is made between direct and indirect financing of industry. The former method has been widely used in Continental Europe where great banks have bought the stocks of new corporations of the companies. In America, on the other hand, banks have bought chiefly seasoned bonds and the note of the private banker, broker, speculator, or investor, with the stock as collateral, but they have not generally bought stocks directly. The American system of indirect financing is considered superior, for in it the "division of labour" has gone further, and the risk-bearing and the manufacturing of bank-credit have been sharply differentiated.*

2. *Harold G. Moulton.* The other of the two economists first revolting against the orthodox principles of commercial banking was H. G. Moulton, who expanded his views in a series of articles published in *The Journal of Political Economy* in 1918.† His reasoning is closely akin to that of Anderson's, though he attacks the problem more systematically and in greater detail. The liquidity of bank assets is scrutinized at two different phases of business cycle: in "ordinary times" and in "times of crisis."

As regards "ordinary times," Moulton confirms the conclusion arrived at by Anderson that the bulk of commercial loans are not liquid in the sense that they would be ordinarily liquidated at maturity, and he shows why this is the case. It is partly a consequence of the stress of competition between rival banks, and partly of the continuous nature of so many lines of business activity; to pay up a loan would merely mean to borrow again immediately at the same or another credit institution. The continuous character of the bulk of commercial loans to customers is also reflected by a technical change which American banking practice underwent in the latter part of the nineteenth century. Bankers departed from the device of lending only on the basis of specific business transactions and granted instead each customer a "line of credit" of such total as the general total of his business warranted. The amount that might safely be loaned could be ascertained only from an intimate personal acquaintanceship with the borrower and his business or from a study of a balance sheet or financial statement setting forth the condition of the business. Under this new method of borrowing the banks lent working capital to the business concerns against their quick assets in general, and they ceased to make temporary advances on the security of individual commercial transactions.

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* In his later writings, Anderson has gradually moved away from the principles of bank liquidity first put forward in *The Value of Money.* Without explicitly renouncing his original views, he has nevertheless, subsequently, raised so many quantitative and qualitative limitations for investment activities of commercial banks that he has come very close to the orthodox theory of bank liquidity. This can be here exemplified only by the following quotation: "The ideal employment of bank credit is in financing the movements of goods, in financing short, self-liquidating commercial transactions. We have gone much too far in the substitution of bank investments in bonds, collateral loans against securities, bank holdings of real estate mortgages, and bank holdings of instalment finance paper for the normal bank credit that represents goods in movement and that adjusts itself automatically to the volume of trade" (*The "Free Gold" of the Federal Reserve System and the Cheap Money Policy, Chase Economic Bulletin*, vol. x, no. 3, p. 17).

† Moulton, *Commercial Banking and Capital Formation, The Journal of Political Economy*, vol. xxvi. It is interesting to note that two years earlier Moulton had still adhered to the traditional views of banking, writing as follows: "Loans for commercial purposes may and should be short-time loans. Such quickly liquidating loans are obviously necessary for a bank which makes its obligations payable on demand. The theory underlying the commercial bank is unquestionably sound" (*Principles of Money and Banking*, Chicago, 1916, p. xvii).

A few of the loans to customers are, of course, of seasonal character, and actually flow into the bank at maturity; but even their liquidity cannot well be relied upon, as the banker can never know just what percentage of the maturities of any given date will really be paid. The only group of commercial assets of truly dependable liquidity is paper purchased through commercial paper houses.

On the side of investment assets, seasoned bonds and stocks may, in ordinary times, at any moment be readily sold through the machinery afforded by the organized exchanges and, consequently, be fully counted upon as secondary reserve. Less liquid are the collateral loans, as in their case renewals are freely granted; they, too, can nevertheless be used as secondary reserve, for the bank may dispose of the collateral in the open market, if the loan is not paid.

Considering now the liquidity in "times of crisis," it will be found that it is absolutely impossible for a bank to compel any considerable number of commercial loans to its customers to be paid. Not only must the customers be "carried" in a time of stress, but there is, at such a time, also an enormously increased demand for accommodation; to contract the loans would be to precipitate a panic at once. It is one of the most surprising of the many inconsistencies in financial literature, Moulton asserts, that so many writers insist upon the need for expanding loans in time of crisis and yet argue in other connections that commercial paper is a liquid asset which is indispensable for the safety of the credit structure in periods of acute financial stress.

The fate of commercial paper bought through brokers, as well as collateral loans and investments in bonds and stocks is, in a crisis, not materially different from that of commercial loans to customers. All banks are endeavouring to sell those assets and none wish to buy; nor are individuals inclined to buy, and to the extent they do actually buy them they must draw the funds from some banks somewhere in the system.

Moulton reaches, thus, the conclusion that no banking assets are liquid in time of crisis. A panic can never be averted by liquidation; it can be averted only through the ability of the financial system either to draw upon unused reservoirs of reserves or to create new forms of reserve money. Further, it is concluded that in ordinary times the problem of liquidity is not a problem of maturing loans so much as it is a problem of shifting assets to other banks in exchange for cash. Liquidity is tantamount to shiftability. The erroneous doctrine that has prevailed in this connection is attributable partly to ignorance of banking practice and partly to the method commonly employed in banking study of isolating the individual bank for consideration and ignoring the existence of the banking system.

In his later writings, Moulton seems to have consistently adhered to the theory of bank liquidity referred to above. The theory serves him as an argument for his general principles of banking policy put forward especially in his study of *The Financial Organization of Society*. He is of the opinion that it is the function of commercial banking to further capital formation, and he regards, therefore, the traditional assumption that commercial banks should confine their activities largely, if not exclusively, to commercial loans as ill-advised; he finds little occasion for concern over the development towards the "department-store type" of financial institution.

3. *Waldo F. Mitchell.* The orthodox theory of bank liquidity was turned upside down by Anderson and Moulton, for the bulk of the supposedly liquid commercial assets were declared non-liquid, whereas some of the investment assets were extolled as the most perfectly liquid ones. No doubt these theories sounded strange in the ears of people brought up to quite different ideas. Nevertheless, the two heretics soon found followers who advanced further in their direction. We shall mention here only those who have contributed to the body of thought of the new liquidity school. Taking them in chronological

order, we have first Waldo F. Mitchell's study on *The Uses of Bank Funds.*[*]

Mitchell, who follows closely Moulton's ideology, calls his theory "The Shiftability Theory." According to him the old theory that since a bank's liabilities are mostly demand its assets should be short-term and self-liquidating, presupposes each bank standing alone instead of being one of a system. Actually, the growth of a banking system has provided the mechanism by which a bank can keep itself in liquid condition. If a bank has good safe assets it need not wait until maturity for their liquidation, but can restore its liquidity by shifting them to stronger financial institutes. The author points out further that though the volume of bond holdings does not usually decrease in periods of depression, bonds must be regarded as especially liquid the test of liquidity being not whether they decrease in the banking system as a whole, but whether individual banks can dispose of their bonds to stronger banks, as usually can be done even in times of crisis and depression.

Mitchell asserts that the shiftability theory is supported by abstract logic and the general practice of banks, but he is careful to point out that it does not give license to unsound banking: an unsafe loan is not a liquid loan, and loans are made unsafe through lending on too narrow margins of income and property, or too large a margin of creditor's equity in the bank itself, or too little attention to secondary reserves.

Mitchell shares also Moulton's general principles of banking policy. He points out in the preface that the aim of his book is to show that newer practices of banks are not inimical to sound banking, and he concludes his study with the statement that there is no need for establishing separate institutions for carrying on the financing of the various kinds of enterprises.

4. *Paul M. Atkins.* The idea of liquid investment assets as secondary reserve, especially emphasized by Anderson, was developed further by Paul M. Atkins.[†] According to him, the investment assets of a bank should be divided into two separate categories, a "secondary reserve account" and an "investment account," which would serve different purposes and to which different rules of policy would be applied.

A secondary reserve account is needed to provide liquidity for the bank, and, at the same time, to help it to maintain its earning power.

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[*] Mitchell, *The Uses of Bank Funds*, Chicago, 1925.

[†] Atkins, *Bank Secondary Reserve and Investment Policies*, New York, 1930.

The composition of the account depends upon several factors; some of them varying with the size and class of the bank and others applying equally to all banks. The basic factor which must exist to a high degree in all assets in this account is safety. The second factor involved is liquidity, which may be further defined as marketability with price stability. The third factor is income; if this factor could be entirely neglected, then cash resources of the bank would meet the need of the other two factors; this factor must, however, be subordinated to the other two.

The investment account of a bank, on the other hand, is organized principally to procure income for the bank. For this reason safety is the first consideration, as no bank should hold any assets which are not thoroughly safe. Yield, however, and not liquidity, is the second factor of importance with liquidity third. There is, according to Atkins, no limit to the size to which an investment account may be built except the lack of funds available for this purpose. Assets should be bought for it with the expectation of holding them to maturity unless it appears to be to the advantage of the bank to sell them.

5. *Lauchlin B. Currie** is, perhaps, the most advanced representative of the New Liquidity School. He assails the three main grounds which he regards as the basis of the "commercial loan theory": the supposed greater liquidity of commercial loans over other types of assets, the belief that the demand for commercial loans offers a good criterion of the credit needs of the community as well as the belief that commercial loans represent the most productive type of loan. Of these, we are here concerned only with the first.

Currie follows Mitchell closely and gives his full support to the latter's shiftability theory. But he takes a step further by denying that commercial assets have any inherent characteristics of liquidity different from other categories of credit items. He points out that the process by which a commercial loan is liquidated is similar to that involved in the liquidation of a security loan, and that this similarity is not affected by the fact that in one case goods are being sold and in the other securities, for securities are merely evidences of ownership of productive equipment. In both cases, broadly speaking, the ownership of goods is exchanged for deposits (or cash). According to Currie, the liquidity of bank assets *en masse* need be no greater than 10 to 15 % over the period of a year. It would appear to be easier to contract loans and

* Currie, *Bank Assets and Banking Theory*, Harvard University Thesis Collection, H.U. 90. 2219 (1931).

investments to this extent than commercial loans, owing to the superior marketability of stocks and bonds over commodities, and also owing to the fact that bank funds furnish only a portion of the market for stocks and bonds while they furnish practically the entire market for commercial loans.

6. *Charles O. Hardy** belongs to the group of economists we are here interested in through his repudiation of the orthodox theory of bank liquidity. According to him, the whole theory of the necessity of self-liquidating quality in bank loans is unsound, for it rests on two assumptions, of which one was probably never justified and the other has now broken down. The first assumption is that fixed capital loans cannot be liquidated in time of need; the second is that the bulk of working capital loans are truly self-liquidating.

Like Moulton, Hardy reaches the conclusion that "the so-called liquidity is really only shiftability," and likewise he concludes that in the field of commercial lending, just as in the capital market, a general liquidation is impossible. There is no way to liquidate any large proportion of the outstanding credit without liquidating the whole modern organization of business. If pressure on the banks to pay off their depositors is at all general, the system breaks down, or relief must come from outside the group.

In spite of this severe criticism of the orthodox theory of bank liquidity, Hardy does not accept the general banking principles more or less common to the other adherents of the shiftability theory. He considers the increase in banks' holdings of securities dangerous, for when a banking system expands its assets and its liabilities by taking in securities and giving out deposit credits the pyramid which must be supported by a limited quantity of gold is expanded, and, more important, the economic area which is exposed to the risk of a sudden pressure for liquidation is enlarged. Moreover, the depression is aggravated through the ensuing liquidation because such a liquidation is certain to involve a lowering of the quality of bank investments, the items which are sold being safer and more liquid on the average than those which remain in the bank portfolios, and doubt is thereby created as to the safety of the banks.

III. PROBLEMS OF LIQUIDITY

The decline of the orthodox theory of bank liquidity in post-war America and the appearance and further development of a new body of banking theories have led to a rather confused situation. Instead of a very plain theory of bank liquidity we are now confronted with a host of new ideas the value of which seems still to be to a certain extent problematic. There is no space to appraise these ideas in detail here, or to relate them to similar trends of economic thought in other countries; the remaining pages must, therefore, simply be used for a statement of the chief problems of liquidity at present.

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* Hardy, *Credit Policies of the Federal Reserve System*, Washington, D.C., 1932.

1. *Definition of Liquidity*. The difference in the views of economists seems to centre, partly, around a failure adequately to define the term "liquidity." An excellent definition has, however, recently been given by Ray B. Westerfield.* He points out that a credit instrument may be liquid by virtue of the self-liquidating character of the transaction underlying the credit, the marketability of the collateral, or the marketability of the credit instrument itself. For the purpose of convenience, Westerfield's division of bank assets into three categories of liquidity may well be reduced to two main categories: a category based upon the principle of self-liquidation, and a category based upon that of marketability. By this grouping we are actually brought back to the fundamental divergence between the orthodox theory and the new theory of bank liquidity; for whereas the old school started from the self-liquidating nature of bank assets, the so-called shiftability theory takes almost exclusively into consideration the characteristics of marketability.

We conclude that "liquidity" is in itself an ambiguous term comprising two categories of credit items liquid on strictly different grounds, and, further, that the theory of bank liquidity becomes a different one, depending on which of these components is chiefly stressed.

In this connection a further source of confusion should be removed. The scope of commercial assets, in the "self-liquidating" sense, has been drawn sometimes more narrowly, sometimes more broadly. There seems, however, to be no valid reason why all credit extended for working capital purposes should not be included in this category, provided, of course, that no more "commercial" credit is used than can be liquidated in the course of a normal production period. Outside the scope of commercial credit are left funds extended for speculative or instalment buying purposes, and, of course, all credit used for fixed capital purposes.

2. *Liquidity in Historical Perspective*. Some of the economists

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* Westerfield, *Liquidity* in the *Encyclopaedia of Social Sciences*, New York, 1933, vol. ix.

referred to above have stressed the point that the orthodox theory of bank liquidity was sound in the times of Adam Smith, but has become antiquated since then. Let us consider briefly this proposition.

Of the two components of liquidity, the principle of self-liquidation is and has always been an attribute of commercial assets only. But though there has been no change in this respect in the course of time, the degree of liquidity has tended to deteriorate. Whereas formerly commercial loans to customers used to be automatically tied to self-liquidating specific business transactions, this practice has been partly discontinued, and the loans have become more continuous, as pointed out especially by Moulton. This tendency is likely to continue because it reflects a corresponding change in economic organization, production tending to become more and more continuous, while improved facilities in distributing products lengthen the period of consumption and reduce the seasonal feature of business.

If we turn to the other component of liquidity, the shiftability, it has undergone even greater changes since the times of Adam Smith. In the period of early capitalism, securities played a relatively insignificant role and their marketability could not well be relied upon; nor were commercial assets readily shiftable, though there may have been, in ordinary times, some prospect of shifting short-term bills before maturity to stronger financial institutions, if necessary. Later, as a result of the growth of a banking system, of improved government credit, of development of the corporation institution and of stock exchanges, important categories of investment assets have gained a high degree of marketability and have in this respect totally outdistanced the bulk of commercial assets; of the latter, only the categories of acceptances and commercial paper bought through brokers have been able to attain a comparable degree of shiftability.

We conclude, then, that in the period of early capitalism the principle of self-liquidation was absolutely as well as relatively much more important than in modern times, and further, that whatever liquidity there existed in the banking system, it was almost wholly a characteristic of commercial assets. No wonder that the earlier economists were so emphatic about the desirability of short-term, mercantile loans. In their days, any other theory would have been unsound. On the other hand, with the deteriorating liquidity of self-liquidating assets and with the increasing degree of shiftability of important categories of investment assets, the ground beneath the orthodox theory of bank liquidity has gradually been giving away.

3. *Secondary Reserve and Bank Liquidity.* The function of a Secondary Reserve is to safeguard the liquidity of a bank or a banking system against exceptionally large withdrawals of cash due to season, sudden market turns, or panicky runs which cannot be fully met by primary reserves. This function implies that only "quick" assets readily exchangeable into cash are suitable for purposes of secondary reserve, assets like government securities, first-class listed active bonds, open market commercial paper and acceptances. Shiftability is, consequently, the sole characteristic of secondary reserve, self-liquidation has little or nothing to do with it, for the maturity of even short-term commercial assets is too slow to be depended upon in an emergency. Consequently, Anderson was right, in principle, in emphasizing the role played by quick assets as secondary reserve. But his reasoning became nevertheless misleading because he did not point out the qualitative and quantitative limits of a secondary reserve. In the latter respect, Atkins supplemented Anderson's original ideology by drawing the well-needed distinction between a secondary reserve account and an investment account.

4. *Liquidity in the Course of a Business Cycle.* In "normal times" all commercial assets as well as investment assets, of a "liquid" character, are liquid; in "times of crisis" all of them are practically non-liquid —this is, in short, the thesis put forward by Anderson, Moulton, and their followers. The thesis is defendable as far as it goes. But it is gravely defective. It gives, so to say, a photographic snapshot of two deliberately chosen moments of a cyclical period; the one picture showing general liquidity prevailing in the banking community; the other, an equally general deadlock. But a photographic eye is static. It cannot show the dynamic forces working beneath the surface which mould the future of the banking system.

A "cyclical theory of bank liquidity" would follow the inherent tendencies of liquidity throughout the different phases of a business cycle; it would follow the forces leading to a financial crisis as well as those leading out of the crisis. For instance, it would mark the pyramiding tendency, which Hardy pointed out, in a banking system which expands its investment activities, a tendency precipitating a crisis; and it would also mark the fundamental difference in a depression period between a banking system depending on the shiftability of its assets, and a system basing its liquidity chiefly upon its self-liquidating assets.

The problem of liquidity in the course of a business cycle is, however, too vast and too intricate to be even touched upon here. Let it only be said that the neglect of this problem seems to be the rock upon which "the shiftability theory" is wrecked. Liquidity is not tantamount to shiftability, for the other component in bank liquidity, self-liquidation, cannot be overlooked.

5. *Liquidity and Central Banking.* Two roads are, roughly speaking, open for a central bank in relation to bank liquidity. It may set out to strengthen the commercial character of the banking system, as was the aim of the original Federal Reserve Act; in this case a central bank would discriminate in its discount policy against investment assets. Or a central bank may also view the specific use of bank funds with indifference, provided, of course, that credit is extended against sound assets. This is the policy advocated by most of the economists referred to above, like Anderson (not in his later writings), Moulton, Mitchell, and Currie, as is quite consistent with their liquidity theory.

Now, whichever road a central bank may choose, evidently the future of the banking system and the character of its liquidity, or non-liquidity, will become totally different. And the ultimate consequences will be good or bad according to the inherent wisdom of the chosen policy. It is, therefore, of utmost importance for central bank policy that a satisfactory analysis of the problems of bank liquidity should be provided by economic theory.

THE RELATION BETWEEN PARTIAL OVERPRODUCTION AND GENERAL DEPRESSION*

W. L. VALK, *Scheveningen*

(1) PARTIAL OVERPRODUCTION AND GENERAL DEPRESSION

IT is not easy to define the notions of partial overproduction and general depression, for whether one of these phenomena presents itself may, to a certain extent, be a matter of appreciation. *Partial overproduction* may be spoken of when the total sales in a certain branch of production are insufficient to cover the cost of production of the commodities which are being sold. However, this is an extreme case, and partial overproduction is generally spoken of long before this phase is reached. Overproduction is a relative notion: when the rate of profits in a certain branch of production has been high for a considerable period of time, an increase of production, which causes a severe decline in price and which diminishes profits by, let us say, 50 %, may be regarded as causing the phenomenon of "overproduction" in that particular branch. But it is clear that it is very hard to determine the point at which "overproduction" begins, and the only sharp line of division which could be drawn is the line of division between the state in which profits are still made and the state in which profits are no longer made. And it is also clear that "overproduction" is a very complex notion. The situation which is meant when this word is used, the state of trade in which no profits or too little profits are made, *can* arise when too much is produced, but can also arise when the monetary volume of sales is shrinking—for instance, when marginal utility (if we may still use this notion) of the article considered is falling; and it can just as well arise when cost of production is rising, which may be the case when the prices of the means of production are increasing or when conditions of production are becoming more unfavourable, so that a larger number of units of the means of production is, in the future, necessary to produce the unit of the finished product.

It is probably better to avoid, in scientific discussions, the word "overproduction," and it seems preferable to speak of "the movement of the rate of profits." Although not every downward movement of the rate of profits in a branch of production has a more or less permanent character, and although in many cases the decline is not severe enough to speak of overproduction, still a downward or upward movement of the rate of profits has, practically, always important consequences and deserves to be studied.

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* Some of the problems touched upon in this article will be treated more fully in my book, *The Principles of Economic Diagnosis*, which I hope to publish very soon.

General depression is something very different from partial overproduction, to such an extent that overproduction may exist in several important branches of production while, at the same time, the general state of business is considered satisfactory.

When there is a general depression, the rate of profits is generally moving downward, but this does not mean that it is declining in all branches of production at the same time. Of course, when the rate of profits is falling in all fields of economic activity there certainly is a general economic depression; but this should not be reversed, for history shows that there have been very violent depressions in which some branches of business made exceptionally high profits. As a matter of fact, some lines of business usually prosper in bad times, but they are, of course, exceptions, and their success is a symptom of the general evil.

We might take the *average* rate of profits in industry, and for many purposes we could certainly use this index; for more detailed analysis it would prove, however, insufficient, and it would appear that we must know not only aggregate and average profits, but also the distribution of profits over the entire industrial system.

It might be asked whether the rate of profits is a sufficient indicator of welfare, and whether it is allowed to say that the state of the economic system is favourable when the rate of profits is rising, while it is bad when the rate of profits is falling. Of course, when the prosperity of a country is analysed there are more criteria which have to be taken into account than the rate of profits only. But, when cyclical fluctuations in business life are studied, the rate of profits is the first criterion to be considered, for it rules the expansion and contraction of business, which is the main object of study when the business cycle is analysed.

Just because, even during the worst phase of depressions, some lines of business are prospering, it is very difficult, especially when adequate statistics of profits are lacking, to gauge the situation. This is especially difficult when business conditions are spotty. Besides, it is usually assumed that partial "overproduction" can breed a general depression, and this makes it even more important to watch the situation and to observe whether the number and the intensity of these "overproductions" is growing, and, if possible, to determine whether, and at which moment, this growing group of "sick" industries may cause a dislocation of the entire industrial body. As we shall see, however, the connection between partial overproduction and general dislocation is by no means so simple as is generally assumed. There is a problem behind this, and when a number of industries are losing ground this may mean that there are better openings for other industries. In that case, partial overproduction may cause partial underproduction, or rather partial prosperity in some other important industries, and the situation of the entire industrial system may improve instead of getting worse. We shall try to solve this problem in due course, but before we can do this we shall have to devote some time to some theoretical explanations in order to have a scientific basis for the following discussion.

(2) CASSEL'S EQUATIONS AND THE PROBLEM OF CHANGES IN QUANTITIES AND PRICES

We shall take Cassel's equations as a starting-point for our discussion, supposing that the reader is familiar with them. These equations, which are probably the simplest possible description of the state of equilibrium, are mathematical formulations of the following facts. The first set of equations tells us that the quantity demanded of every finished consumption commodity is a function of the prices of all consumers' goods. The second set of equations tells us that in the state of equilibrium cost of production equals price; and the third set of equations tells us that in the state of equilibrium the supply of the factors of production is just sufficient to manufacture the amount of consumers' goods which can be sold. Cassel needs more equations than these, but as a description of the state of equilibrium these three sets of equations are, for our purposes, sufficient.

Given the fact that our society is static, the equations tell us that there is a certain system of prices for consumers' goods and producers' goods, which can be calculated when the data are given. And the data are: the shape of the functions of demand, the technical coefficients (the number of units of each factor of production necessary to produce the unit of the finished product), and the amounts available of the factors of production. The means of production are supposed to be distributed economically over the field of industry—that is, according to the second law of Gossen. Although Cassel introduces concrete money only at a later phase of his discussion, we shall immediately introduce a certain quantity of money into our discussion.

As soon as dynamic circumstances are taken into consideration, these equations, of course, lose the character of equations. It is possible that a dynamic state of things can be adequately described by several sets of equations, but these would have to be very different from those considered here above and would have to contain more elements. We are not going to attempt this, as, for our present purpose, it is sufficient to demonstrate how the introduction of dynamic circumstances destroys our equations.

Under dynamic circumstances, the quantity demanded of every commodity is, of course, still a function of the prices of all consumers' goods. But the quantity *supplied* is not equal to the quantity demanded; it should be, of course, although allowance must be made for the keeping of stocks, because under fluctuating conditions it is never possible to estimate future demand exactly; but, besides, in practice the system of prices is never in harmony with conditions, and especially when attempts are made in order to keep prices up it may occur that many prices are too high, so that stocks of more than "normal" magnitude are being formed. It should not be forgotten that this is not only true for the prices of finished commodities, but also for all other kinds of products, especially raw materials, the stocks of which are rightly regarded as great dangers for the development of economic conditions. It is beyond the scope of this article to analyse the ultimate effects of changes in the prices at all the different phases of a chain of productive activity, but we should remind the reader of the fact that, for purposes of economic diagnosis, it is not sufficient to pay attention to prices of consumers' goods and prices of the factors of production only. The prices of intermediary goods are sometimes very important. In case the attempts to keep prices high are more or less general, this might become a cause of general depressions, as this mistake in pricing can produce considerable stocks and thus obstruct the normal functioning of the process of production. In order to produce this result it is not necessary that prices increase; it is sufficient if they remain unchanged when they ought to decline.

Probably more common and more dangerous are mistakes in pricing with reference to the means of production. Under dynamic circumstances the formulas for the connection of cost of production and price lose their equation character; when business is good there must be a considerable margin between cost and prices, and when business is bad it may occur that cost of production exceeds price. The failure of the prices of some of the means of production, especially labour and land, to move smoothly up and down with prices, is probably the main cause of the long duration of business depressions in modern times.

When prices are not in harmony with conditions it is inevitable that the third set of equations lose their equation character too; when the prices of the means of production are too high, it is not possible to employ the entire supply of them, with the result that a certain amount of them remains unemployed.

Even the relation of data to unknowns is not quite the same under actual conditions. Apart from the fact that it is under actual conditions impossible to calculate prices when the "data" are given, it is, at the other hand, not even allowed to see the data as given variables and the prices as results. For the fact that mistakes are made in pricing, and that these mistakes are often of a rather permanent character (wages), changes the situation. Wrong pricing is, so to say, a new element in the system; it is no longer true that the movement of some original quantities constitutes the frame for pricing, and that pricing is a result which has to be in harmony with conditions; but it must be admitted that wrong prices, which are not in harmony with conditions, have an active influence on the system and may cause the other quantities to change.

After this theoretical introduction we must return to our problem of overproduction, and must start to give an answer to the question whether partial overproduction can breed a general depression. In order to answer this question we must first ask whether and to what extent a sudden and excessive expansion of production in a certain branch of economic activity really *must* lead to a decline of profits in the branch of production considered. Theoretically this is not necessarily the case. If the prices of the factors of production were more flexible than they really are, it might be conceived that a decline in the monetary volume of sales through overexpansion of production might be compensated by a decline in the prices of the agents of production used in the branch of production considered. This could only be so for a comparatively small time, for, the remuneration of the factors of production being higher in other branches and other regions, this would cause a seepage of certain quantities of the factors of production to these other branches of production and regions.

In practice, however, this adaptation does not take place as smoothly as we have assumed: the prices of the means of production move rather slowly; and the price of the finished product cannot always be put at such a low level that the entire quantity produced can be sold. Stocks are inevitable, especially when the demand for the article considered is more or less inelastic; unemployment and restriction of production follow from this situation.

To what extent, now, does the area of low pressure which is formed in this way influence the rest of the business world? In order to set this problem in a clear way we shall give an example. We shall suppose that a continuous overproduction of coffee in Brazil has produced a regional depression in that country; that the price of coffee has fallen to such an extent that Brazil's income from foreign trade has suffered a decline of 100 million dollars during a certain period. Let us, for the sake of simplicity, assume that this coffee is exclusively exported to the United States and is usually paid for with North American steel products. The immediate effects of these changes are that the Brazilians must buy 100 million dollars less from the United States; but that, at the other hand, the inhabitants of the United States pay 100 million dollars less for their coffee, which amount they can spend for other purposes. In case they could use this amount for the purchase of the steel products which would otherwise have gone to Brazil, there would not be any effect of the crisis in Brazil on the business situation in the United States. Other things being equal, there would not be a change in the national income and in the rate of profits; there would only be a change in the channels through which money flows, and there could only be a change in the rate of profits in case the substitution of the channels had been imperfect.

The case considered is, of course, highly theoretical, and in practice a collapse of business life in Brazil *will* have an important influence on business life in the United States. In order to examine this, we have to answer several questions: First, we must ask whether this amount of 100 million dollars which is saved when coffee is bought is really spent for something else. Second, whether, if the amount is spent, a smooth substitution of the channels through which money flows is possible. And third, whether this process is not accompanied by movements in other fields which may have disturbing effects.

(3) THE CONSEQUENCES OF THE CRYSTALLIZATION OF CAPITAL AND LABOUR

The first reason why the purchasing power which is set free through the decline of the coffee price cannot be absorbed without friction by another part of industry is that capital and labour are crystallized for a longer or shorter period into definite forms and can only change their forms after a considerable period of time has passed. The steel products which used to be sent to Brazil in the example which we gave in the preceding section can only partly be absorbed by North American demand, that is to say, to the extent to which they are capable of satisfying North American wants. But it is quite possible that very special kinds of steel products are usually sent to Brazil which, in that particular form or quality, cannot be used in North America. Even in case the Americans would be willing to spend the 100 million dollars which have been set free for the purchase of steel products, these steel products would partly have to be different from the products which are made for the Brazilian market. This means that, in this case, the American steel industry has to be reorganized, its machinery and organization have to be changed in such a way that production can be adapted to American needs. This means an additional demand for capital and, therefore, another change in American business life.

The immediate effect is, in any case, that the home sales of the American steel industry are not increased by 100 million dollars, and the question which has now to be answered is what the American consumer does with the 100 million dollars which he has saved on coffee. There are several possibilities: to the extent to which he does not buy more iron and steel products, he may buy other consumers' goods; he may not spend the money at all; he may save it and invest it.

In the present section we are only concerned with the first possibility. The consumer may choose to spend the money saved by the reduction of the coffee price for buying cigars, candies, ice cream, etc. But here the same problem arises; also in these other industries capital and labour are crystallized in definite forms and, although a great deal of adaptation may be possible, there will be some friction. The normal course of things in the example given hereabove will, however, be that after some time industry will absorb the 100 million dollars of additional purchasing power on the home market, and the capital equipment of industry will adapt itself to changed needs.

Although in our example we have spoken of two different countries, we can just as well demonstrate the problem by analysing the business situation in one country. The only difference is, then, that the industry which first loses purchasing power is also an American industry, so that in that case not only the iron and steel industry loses purchasing power, but also the industry which used to buy from the iron and steel trade and which has initiated the process of changes. When a great number of trades have overexpanded there may be many suffering industries in the country. But the very fact that they make low prices is a cause of prosperity for other industries. For either these use these cheap products as raw materials, and in that case their profits increase, or these cheap products are consumers' goods, and in this case the purchasing power for other goods on the home market increases, because consumers have to spend less for the articles which have become excessively cheap. So it is theoretically conceivable that a large part of industry is in a very depressed state, while the flow of money is more and more confined to a small group of highly prospering industries. It is possible that the majority of industries are making heavy losses, but that simply the channels through which money flows have been changed, so that the bulk of national income flows through the hands of those who are engaged in these few prospering industries, which pay high wages and salaries and make fabulous profits. Of course, business conditions are far from sound when this is the case, but, if the average rate of profits is taken as an index of prosperity, there is no objection against calling the phase in which business life in that case still finds itself a phase of prosperity.

In practice, this process of substitution proceeds gradually and seldom disturbs the course of events in economic life. It means some loss of capital, for certain forms of capital lose their value and have to be replaced by new ones; it develops a need for savings, which is not necessarily accompanied by growth of the economic system but is simply caused by the necessity of substituting certain kinds of machinery, etc., for other kinds. As labour is also crystallized in definite forms and does not move freely from one branch of production to another, such a process of change always causes some unemployment. And, although the flow of money may not be damaged, the total volume of sales remaining the same and the total volume of cost of production remaining the same (which is, of course, not always the case), a considerable change has taken place. For even if the same income is paid, it is paid to a smaller number of persons than before the change had taken place. This means that the change in consumption must in some cases be very considerable, for the sales of many companies are a function of the number of persons enjoying an income of a certain magnitude. Now that the same income is enjoyed by a smaller number of persons, less will be sold of these things, and a part of the purchasing power which used to be applied for buying these things will now be used (as we assume that the income is still spent and not saved or immobilized) for buying other things.

All this does not mean that a collapse of the economic system has to take place; but it makes for elements of instability, it makes business "spotty," and may prepare the ground for more serious events. In general, the action of the principle of substitution may certainly not be taken as an unfavourable factor in the business cycle, for this process is not always initiated by mistakes, as in the case which we have treated; it always accompanies progress, and the difficulties which arise during the process of adaptation when one industry takes the place of another is a part of the price which we have to pay for progress.

(4) HOARDING AND INVESTMENT

When a change occurs in the channels of the flow of money, this necessarily means a change in the distribution of income. In the example which we gave the producers of coffee have less to spend and the consumers of coffee have more to spend, as they have less to pay for their coffee. In the preceding section we have assumed that the 100 million dollars which were set free in this way were spent for the consumption of other things, so that the circulation of money was not damaged, and the only effect was a change in the channels through which money flows.

But there are other possibilities. First, it is possible that a part of these 100 million dollars is not spent at all, either because consumers cannot immediately decide what they will buy for it or because they have not yet decided whether they will consume or save. In the second case the inclination towards immobilizing money will be greater the larger the distrust of investors concerning the investment market. The inclination to save or hoard will also be strong in the coffee region, because there is fear concerning the future, and although people earn less the inclination towards laying small amounts aside is stronger than in normal times.

When the process causes hoarding, this means, of course, necessarily an aggravation of the situation. For it means that the flow of money into industry is damaged, and this means a contraction of the volume of sales without a corresponding contraction of the cost of production, and therefore a decline of business profits.

In case the money which is saved is invested, the effect is different. In that case money still flows into industry at the same rate, but there is an additional change in the channels through which money flows, and therefore an additional source of confusion. But, as we have seen, the process of substitution itself has the tendency to increase the demand for capital, so that there is at the same time an opening for new savings. Nevertheless, important changes in the relative importance of the flow of money devoted to the purchase of consumers' goods and the flow of money devoted to the purchase of investment goods may have some importance for the course of development of business events. This may result in oversaving or overinvestment, and, if the change is lasting and its importance increasing, an important part of the flow of money may be localized in the sphere of production and never reach the market for consumers' goods at all, which may be an important cause of business depressions, although we have no statistics to prove it.

Of course there is much more to be said about the rôle of saving in the business cycle; but for the present purpose it is sufficient to know that a change in distribution may lead to oversaving, overproduction, and thus to new regions of low pressure. But that this will happen as a consequence of the change in distribution only is not probable.

(5) OVERPRODUCTION AND BANK POLICY

Until now we have treated the problem of the influence of partial overproduction on the general business situation without any reference to banking and speculation. As soon as these factors are introduced the problem changes; the action of the principle of substitution, whether initiated by "mistakes" in production or not, would probably not easily produce economic depressions if business were not dependent on conditions of banking and speculation, and if these did not prove sensitive to partial dislocations.

Let us return to our example, and ask to what extent bank policy will react on the situation. In Brazil the decline of the coffee price produces a general economic depression, as the damage done to the national income is enormous. But a shrinkage of the national income could be compensated by banking policy if banking policy were directed towards inflation or reflation. This, however, is not probable, and the opposite is more likely to occur; the losses which many people have suffered largely increase the risk of lending money, and, besides, as short-term credit is often given on stocks of raw materials in one form or the other, it is clear that the volume of lending will probably be reduced to a greater extent than would correspond to the decline in prices. But credit contraction has an unfavourable effect on the general price level, and may have an unfavourable effect on the total sales of business. And if this reduction in the total sales is not accompanied by a reduction in the total cost of production the business situation may be seriously aggravated.

In the United States, in our example, circumstances are different. Bankers may judge it wise to withdraw some credit from the steel industry, but, if consumers spend their money in other directions, there may be brilliant investment opportunities in other lines of economic activity. In this case the negative action of the banking system will, however, probably precede the positive action, for it will take some time before the growth of the industries which absorb the purchasing power which has been set free by the reduction of the coffee price becomes visible. Nevertheless, it is not likely that the business situation in the United States will become unfavourable, even if the volume of bank credit undergoes some temporary reduction.

(6) THE INFLUENCE OF SPECULATIVE MARKETS

The existence of speculative markets changes the problem considerably; their influence may be powerful and they may, indirectly, act on bank policy. In our example the coffee exchange will break first, and the stock exchange will be immediately affected through a heavy decline in coffee shares. But this is not all: people who have suffered losses on one thing do not always sell this thing, because they may expect the market to recover. In that case they often sell something else in order to save the thing on which they have lost and which they do not wish to sell. Hence a remarkable phenomenon: when one exchange breaks down it has the tendency to drag other exchanges with it, and will do so when the initial blow has been powerful enough and when the psychological atmosphere is favourable for downward movements. Usually the breaking of one market is not sufficient to produce a general depression, for downward tendencies in the economic system may be counteracted and compensated by upward tendencies in other parts of the system.

But, when business is already "spotty" and when there is a growing distrust in the market, even small blows may have important consequences. The initiation of a downward movement on the stock exchange is particularly dangerous because it paralyses the process of investment and may cause a huge immobilization of money, either in the hands of investors or in the banks. In that case the circulation of money is severely damaged and a general economic depression may follow. It is easy to see that a downward movement of the exchanges—the commodity exchanges as well as the stock exchanges—must have an unfavourable influence on bank policy. Bankers begin to withdraw their money, and the result is a series of cumulative changes which seems endless and which seems to contradict the old truth that the economic mechanism, when it has been disturbed, has the tendency to return to some state of equilibrium.

(7) CONCLUSIONS

The problem whether partial overproduction can breed a general depression is partly a quantitative, partly a psychological problem. It seems justified to conclude that serious overproduction of several important raw materials may cause a crisis, unless these unfavourable developments are compensated by favourable developments in other fields. It will probably never be possible to foretell at which moment overproduction starts to become a danger to the entire economic system, but it seems wise to watch carefully the effects of the situation on the circulation of money, on speculative markets, and on bank policy. And it certainly is justified to consider partial overproduction as a great danger to general prosperity. To prevent it and to keep the movement of business profits somewhat more stable than is nowadays the case seems to be one of the great problems of the future.

BEMERKUNGEN ZU DEN PROBLEMEN VON AUFBRINGUNG UND TRANSFER

STEFAN VARGA, *Ungarisches Institut für Wirtschaftsforschung in Budapest*

SEIT Kriegsende, seitdem die Frage der Reparationen aufgerollt worden ist, stehen die Probleme von Aufbringung und Transfer im Vordergrund der wirtschaftspolitischen und wirtschaftstheoretischen Erörterungen. Besonders seit dem Bekanntwerden des Dawes-Plans erhielten diese eine neue Note. Der Dawes-Plan stellte sich bekanntlich auf den wirtschaftstheoretisch und wirtschaftspolitisch gleich belangreichen theoretischen Standpunkt, Aufbringung und Transfer bildeten von einander unabhängige Probleme,* von denen bloss das Problem des Transfers eingehendere Beachtung verdiene, da einerseits die Möglichkeit der Aufbringung eine Tatsachenfrage bilde, bei der theoretische Probleme kaum in Frage kämen und da andererseits das Aufbringungsproblem für Deutschland, dessen Verhältnisse damals allein zur Diskussion standen, aus dem Grunde als ein leicht lösbares Problem erschien, weil das Deutsche Reich als Folge der Inflation an ihrem Schuldendienst bedeutende budgetarische Ersparnisse erzielt habe, so dass die deutsche Volkswirtschaft im Stande sein müsse, beträchtliche Beträge, die es früher für den Dienst seiner öffentlichen Schuld benötigt hat, in Hinkunft für Reparationszwecke aufzubringen und hiezu schon aus dem Grunde zu verhalten sei, weil sonst die Steuerlast der deutschen Steuerzahler geringer als die der Alliierten wäre.† Diese Auffassung hat die Reparationsfrage und damit im Zusammenhang auch die Aufbringungsfrage als rein fiskalisches Problem betrachtet.‡ Ihr wurden zuweilen volkswirtschaftliche Gesichtspunkte entgegengehalten und richtigerweise behauptet, diese Gleichstellung sei nicht ganz berechtigt, da es wohl einen Unterschied mache, ob — wie bei den Reparationszahlungen — aufgebrachte Beträge aus einer Volkswirtschaft in eine andere übertragen werden sollen, oder ob — wie bei der Aufbringung für den inneren Schuldendienst — nur eine interne Einkommenverschiebung erfolgen soll. Diese Ansicht wurde aber in der Literatur kaum weiter verfolgt, trotzdem sie — weil sie eben *volkswirtschaftliche* Gesichtspunkte betont — mehr Beachtung verdient hätte. Vorweg soll aber gleich bemerkt werden, dass auch diese Auffassung noch den Fehler begeht, die Aufbringungsfrage als rein monetäres Problem zu behandeln und es unterlässt "den Geldschleier zu lüften," d.h. die Erscheinungen auch in ihren naturalwirtschaftlichen Zusammenhängen zu untersuchen.*

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* Vgl. August Philips, Jr.: *Economic Aspects of Reparations and Inter-Allied Debts*. S. C. Van Doesburgh, Leyden, 1930, S. 27.

† Reports of the Expert Committees appointed by the Reparations Commission. London, 1924, SS. 22–23.

‡ So versteht z.B. Harald Fick: *Transferproblem und Transfertheorie. Ein Beitrag zur volkswirtschaftlichen Theorie der deutschen Reparationen* (Gustav Fischer, Jena, 1929) unter "Aufbringung" einfach ein staatsfinanzwirtschaftliches Problem, was insofern begründet ist, als er sich ja nur mit dem Reparationsproblem, nicht aber auch mit dem von allen einseitigen Wertübertragungen befasst, insofern aber m.E. zu eng ist, als dadurch eben nur der privatwirtschaftliche Gesichtspunkt Beachtung findet, das Problem der volkswirtschaftlichen Aufbringung aber unberücksichtigt bleibt. Besonders irreführend erscheint mir, dass *Fick* und viele andere das Aufbringungsproblem als geldliche und nicht als Erscheinung der Güterwirtschaft betrachten. Hiefür ist die

Das Aufbringungsproblem hat, wie schon bemerkt worden ist, verhältnismässig kaum Beachtung gefunden.† Dem davon in der Literatur meist als unabhängig betrachteten Transferproblem ist mehr Beachtung geschenkt worden. Zuweilen ist es wohl vorgekommen, dass an der Berechtigung der Trennung der Aufbringungs- und Transferprobleme gezweifelt wurde. Doch auch in diesen Fällen hat man sich eigentlich nur mit dem Transferproblem befasst und die Ansicht verfochten, das Transferproblem würde sich als Folge der Aufbringung und der dadurch verursachten Deflation und Preissenkungen automatisch lösen. Es ist bekannt, dass diese sog. automatische Theorie des Transfers stark angegriffen wurde. Doch ist es ersichtlich: auch diese Auffassung untersucht eigentlich nur das Problem des Transfers, während es die Aufbringung als Gegebenheit betrachtet und es unterlässt, die Frage zu untersuchen, zu welchen Konsequenzen

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Definition charakteristisch: "Wir verstehen unter 'Aufbringung' alle diejenigen wirtschaftlichen und finanziellen Handlungen und Vorgänge, die notwendig sind, um alljährlich eine bestimmt festgesetzte Geldsumme in die tatsächliche Verfügungsgewalt des Agenten (für Reparationszahlungen) zu bringen" (op. cit., S. 40). Und weiter: "Die Aufbringung ist also im wesentlichen eine finanzwirtschaftliche Erscheinung" (op. cit., S. 41). — Aehnlich aber auch z.B. Albert v. Mühlenfels: *Transfer Betrachtungen über Technik und Grenzen der Reparationsübertragung*. Gustav Fischer, Jena, 1926, S. 1.

* Als charakteristisch dafür, dass meist nur von Geldbeträgen und fast nie von Gütermengen die Rede ist, können folgende typische Ausführungen gelten: ". . . car autre chose est de prélever une somme sur un ensemble de revenus à l'intérieur du pays, autre chose de faire parvenir cette somme à une destination extérieur." Raymond Deschiétère: *Les Reparations. La protection des obligataires. La Banque des Règlements Internationaux*. Les Presses Universitaires de France, Paris, 1931, S. 98.

† Vgl. z.B. v. Mühlenfels, op. cit., S. 1.

es führen würde, falls der Transfer trotz der Aufbringung aus irgend einem Grunde nicht gelingen sollte. Mit diesem Problem hätten sich selbstverständlich vor allem jene* zu befassen gehabt, deren Ansicht nach der Transfer keine automatische Folge der Aufbringung ist; weil aus dieser Auffassung schon mit logischer Zwangsläufigkeit die Möglichkeit der Annahme folgt, dass die Aufbringung gelingt, der Transfer aber nicht, in welchem Fall zu untersuchen ist, wie das Fortbleiben des Transfers auf die mit der Aufbringung zusammenhängenden Erscheinungen zurückwirkt.† Der Dawes-Bericht hat diese Frage nicht berührt, obzwar er dafür gesorgt hat, dass die für die Zwecke der Reparationszahlungen aufgebrachten, jedoch nicht transferierbaren Beträge über ein gewisses Mass hinaus nicht anwachsen, da dann eben auch die Aufbringung zu suspendieren gewesen wäre. Dieser Betrag war jedoch mit 5,000 Millionen Reichsmark so hoch festgesetzt, dass im Falle seiner Ansammlung, wozu es ja leicht hätte kommen können, da ja der Dawes-Plan die Bestimmung enthielt, dass die auf seiner Grundlage zu erfolgenden Zahlungen die Goldparität der Mark nicht gefährden dürfen, die gleichen Probleme, die im weiteren vornehmlich an Hand der Ereignisse in Ungarn in den letzten Jahren dargestellt werden, ebenfalls aufgetreten wären. Die am 9. Juni 1933 erfolgte Verordnung des Transfermoratoriums für Deutschland hat aber — trotz der Ende Juni 1933 verfügten Erleichterungen dieses Transfermoratoriums — diese Probleme auch für Deutschland in vollem Masse aktuell gemacht. Überhaupt kann der Umstand, dass die Probleme von Aufbringung und Transfer und ihrer Beziehungen bloss im Zusammenhang mit dem Reparationsproblem zur Erörterung gelangt sind, im Grossen und Ganzen als Zufall betrachtet werden, da diese Probleme eigentlich Teile des allgemeinen Problems der einseitigen internationalen Wertübertragungen,‡ vor allem aber der Balanzierung von stark passiven Zahlungsbilanzen bilden und z.B. in Ungarn unabhängig von den übernommenen, verhältnismässig geringen, Reparationsverpflichtungen zu Bedeutung gelangt sind.

Diese Fragen haben nun in den letzten Jahren eine praktische Bedeutung erlangt, der sich auch jene nicht entziehen können, die die Ansicht vertreten, dass die Aufbringung gleichzeitig die Ermöglichung des Transfers bedeute. Seit den seit Juli 1931 neu aufgetretenen Devisenschwierigkeiten mancher Staaten haben verschiedene dieser sich auf den Standpunkt gestellt, dass sie die dem Auslande gegenüber geschuldeten Zahlungen nicht leisten könnten, dass sie jedoch — schon darum, um nicht Schuldbeziehungen zu petrifizieren und um auch zwischen der Insolvenz der einzelnen Schuldner und der Volkswirtschaft als solcher zu unterscheiden — die interne Aufbringung durchzuführen hätten. Diese Auffassung bedeutet also wieder die Trennung des Aufbringungs- und des Transferproblems: die Aufbringung erscheine möglich selbst in dem Falle, dass der Transfer undurchführbar sei.

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* Vgl. z.B. F. W. Taussig: *Deutschlands internationaler Handel und das Reparationsproblem. Archiv für Sozialwissenschaft und Sozialpolitik*, Bd. 60, 1928, SS. 225 ff.

† v. Mühlenfels berührt dieses Problem, op. cit., SS. 29 und 94.

‡ Melchior Pályi: *Der Zahlungsbilanzausgleich bei einseitigen Wertübertragungen. Archiv für Sozialwissenschaft und Sozialpolitik*, Bd. 56, 1926, S. 302.

In diesem Zusammenhang wären nicht zwei, sondern drei Erscheinungen begrifflich scharf zu scheiden: das privatwirtschaftliche Aufbringungsproblem, das volkswirtschaftliche Aufbringungsproblem und das volkswirtschaftliche Transferproblem.

Unter Transfer ist zu verstehen, dass die gegenüber dem Ausland fälligen Geldverpflichtungen dem Auslande in ausländischer Valuta zur Verfügung gestellt werden. Der Transfer kann sowohl echt als auch unecht sein, in welch letzterem Fall der Transfer aus neuen Auslandsanleihen erfolgt, volkswirtschaftlich gesehen also nur eine Konversion vor sich geht. Demgegenüber kann es einem echten Transfer gleichgestellt werden, falls die Notenbank ihren Gold- und Devisenschatz nicht aus dem Erlös einer Auslandsanleihe, sondern durch Aufkauf eines Teils der Exportdevisen erhöht.

Der Transfer wird derzeit in den Staaten, in denen ein Transfermoratorium verordnet wurde, für die gegenüber dem Ausland bestehenden Geldkapitalverpflichtungen als ganz, für die Zinsverpflichtungen aber als grösstenteils unmöglich und in jenen Staaten, in denen, wie z.B. in Ungarn auch Beschränkungen des Devisenverkehrs bestehen, auch bezüglich der Verpflichtungen aus Warenlieferungen als nur beschränkt möglich erachtet. Demgegenüber gilt das Aufbringungsproblem schon auf Grund der dargestellten Auffassung, die die Billigung der Völkerbundexperten, aber auch die der am meisten beteiligten Auslandsgläubiger gefunden hat, ferner auch auf Grund der erlassenen Verfügungen als ein vom Transfer ganz selbstständiges und verwirklichbares Problem. Die gleiche Auffassung hat auch der Präsident der Deutschen Reichsbank Dr. Schacht in seiner Äusserung vertreten, mit der er die Verordnung des deutschen Transfermoratoriums zu begründen suchte. Und dort, wo — als Folge der noch darzustellenden Zusammenhänge — die privatwirtschaftliche Aufbringung nach dem Stocken der volkswirtschaftlichen Aufbringung ebenfalls Schwierigkeiten begegnete, wurde die teilweise Aufhebung der privatwirtschaftlichen Aufbringung immer mit den Schwierigkeiten der schuldnerischen Privatwirtschaften begründet, nie aber mit den Zwang jener volkswirtschaftlichen Zusammenhänge, auf die weiter unten verwiesen werden soll.

Zuerst ist das privatwirtschaftliche Aufbringungsproblem zu berühren, dessen Möglichkeit von der Regelung des Transferproblems offenbar unabhängig ist. Unter privatwirtschaftlicher Aufbringung ist zu verstehen, dass die verpflichteten Wirtschaften ihre Fälligkeiten an Zinsen und Kapital sowohl bezüglich der ihnen gewährten lang- als auch kurzfristigen Anleihen erfüllen. Es ist jedoch vom volkswirtschaftlichen Gesichtspunkt aus nicht ganz gleichgültig, ob die zur Erfüllung dieser Verpflichtungen erforderlichen Beträge Ertrag (Überschuss, Gewinn) ihrer Wirtschaftstätigkeit bilden, oder aber aus der Verwertung ihrer Kapitalsubstanz, oder schliesslich aus ihnen durch Inländer neu gewährte Kredite stammen. Die Grenzen der privatwirtschaftlichen Aufbringung bilden die Leistungsfähigkeit der einzelnen Betriebe, wobei es jedoch im öffentlichen Interesse auch zu einer Einschränkung der privatwirtschaftlichen Aufbringung kommen kann, wenn die Verpflichtungen von einer grossen Zahl von Schuldnern grösser sind, als ihre Leistungsfähigkeit.

Die Regelung der Transferwirtschaft ist in den verschiedenen Staaten, in denen eine Devisenzwangswirtschaft eingeführt wurde, verschieden. In Ungarn werden die dem Ausland gegenüber fälligen Beträge in die Transfer- oder Clearingfonds bei der Nationalbank eingezahlt. Die Bestimmung des Transfer- und des Clearingfonds ist ganz verschieden. In den Transferfond soll der Dienst von Geldschulden (d.h. Amortisationsdienst von langfristigen Anleihen und Zinsendienst nach kurzfristigen Geldschulden) eingezahlt werden, während der Clearingfond dazu dient, um in jenen Fällen, in denen es eine Vereinbarung für die Abwickelung des intervalutarischen Verkehrs zwischen der Ungarischen Nationalbank und den Notenbanken von anderen Staaten gibt, den Zahlungsverkehr aus sich auf Warenlieferungen gründenden Verpflichtungen zu vermitteln. Das Spezifische der Transfer- und Clearingfond-Einrichtungen bildet, dass die durch Inländer dem Ausland gegenüber zu leistenden Zahlungen nicht Zug um Zug abgewickelt werden. Nach der privatwirtschaftlichen Aufbringung im Inland erfolgt die Erfüllung dem Auslande gegenüber nicht sofort. Beim Transferfond ist das natürliche Folge der Einrichtung selber, da er doch eben dazu dient, die privatwirtschaftliche Aufbringung trotz des Moratoriums gegenüber dem Ausland aufrecht zu erhalten. Beim Clearingfond ist das Anwachsen der Guthaben wiederum Folge des Umstandes, dass die Einzahlungen bei den ausländischen Vertragspartnern der ungarischen Notenbank im allgemeinen viel geringer sind, als die Einzahlungen bei letzterer. Hiedurch wachsen die Verpflichtungen gegenüber dem Ausland trotz der privatwirtschaftlichen Aufbringung an, was im Anschwellen des Clearingfonds zum Ausdruck gelangt. Der wirtschaftlich-monetäre Effekt von Transfer- und Clearingfonds ist der Gleiche, obzwar es für die zukunft natürlich einen Unterschied bedeutet, dass der Clearingfond früher zu liquidieren sein wird, als der Transferfond. (Zu bemerken ist, dass in letzterer Zeit die Saldi der durch die Ungarische Nationalbank geführten Clearingkonten stark zusammengeschrumpft sind, das bezügliche Guthaben des Auslands also teilweise liquidiert wurde.)

Zu berücksichtigen ist selbstverständlich auch, dass nicht der gesamte Zahlungsverkehr dem Ausland gegenüber über Transfer- und Clearingfonds geleitet wird. Ein Teil des Zahlungsverkehrs, besonders insoferne er sich auf Zahlungsverpflichtungen aus Warenlieferungen gründet, wird durch die Notenbank in althergebrachter Weise, dass heisst Zug um Zug abgewickelt. Ein anderer Teil aber wickelt sich in illegaler Weise, also durch Umgehung der als Folge der Devisenbeschränkungen ein Monopol für Devisentransaktionen besitzenden Notenbank ab.

Der wirtschaftliche Effekt dieser beiden letzteren Arten von Devisentransaktionen ist ganz verschieden von dem der Einzahlungen in die Transfer- und Clearingfonds, da in diesen letzteren Fällen die für den Ankauf von Devisen verwendeten Beträge an Inlandsvaluta sofort wieder in Verkehr gelangen. Kauft man Devisen von Privaten, so ist das ganz offenbar, kauft man jedoch Devisen von der Nationalbank, so ist zu beachten, dass die Nationalbank diese Devisen — besonders unter den derzeit obwaltenden Verhältnissen — nicht aus ihren ständigen Reserven überlässt, sondern Devisen nur in dem Masse abgibt, in welchem ihr solche zufliessen, woraus folgt, dass beiläufig dieselben Beträge, die bei ihr als Gegenwert der durch sie überlassenen Devisen einfliessen, ihrerseits wiederum zum Ankauf dieser Devisenbeträge verausgabt werden. Diese Transaktionen üben also auf den Betrag des Geldumlaufs keine Wirkung aus. Demgegenüber ist die deflationistische Wirkung der Einzahlungen in den Transferfond selbstverständlich und die Einzahlungen in den Clearingfond üben eine ähnliche Wirkung aus, solange — und lange Zeit war dies der Fall — der Saldo der durch die Nationalbank geführten Clearingkonten anschwillt. (Die Lage ist natürlich verändert, seitdem die Clearingsaldi wieder abnehmen; — doch lange Zeit haben sie ständig zugenommen.) Falls der Transfer der in die Transfer- und Clearingfonds eingezahlten Beträge sich tatsächlich abwickeln sollte, würde diese deflationistische Wirkung meist ausbleiben, da in diesen Fällen als Gegenpost Zahlungen aus dem Ausland dem Inland gegenüber stehen würden. In allen Fällen nämlich, in denen diese Gegenpost nicht aus einem durch das Ausland gewährten Kredit entstehen würde, sondern Ergebnis von sichtbaren oder unsichtbaren Exporten wäre, müssten die für Transferzwecke eingezahlten Beträge zum Ankauf dieser Waren wieder in Umlauf gebracht werden.

Diese Sachlage kompliziert sich allerdings dadurch, dass dem Export Grenzen gezogen sind, die es verhindern können, dass er sich nach Massgabe der im Inland erzielten Deflation entwickele. Einerseits spielt das Problem der Nachfrage-Elastizität im Ausland eine wichtige Rolle. Die sich um diese Frage entspannte Diskussion zwischen *Keynes*, *Ohlin*, *Rueff*, *Haberler*, *Machlup*, *Lösch** und anderen ist wohl bekannt. Doch blieb in dieser Diskussion ein wichtiger Gesichtspunkt, der der Frachtkosten, unberücksichtigt. Allerdings lässt sich diese Frage mit dem Problem der Nachfrage-Elastizität in Verbindung setzen, doch ist es besser, sie in ihrer konkreten Eigenheit zu untersuchen. Falls nämlich die durch die Aufbringung bewirkte Deflation die Inlandspreise senken, die Übertragung der aufgebrachten Kaufkraft an das Ausland die Auslandspreise aber heben und hiedurch einen Warenexport bewirken sollte, so ist die Annahme trotzdem nicht gerechtfertigt, dass die Inlandspreise wieder ihr früheres Niveau erreichen werden. Zu bedenken ist nämlich, dass der Absatz eines grösseren Exports meist die Verlängerung des Exportradius mit sich bringen würde. Da aber der Preis—besonders bei Landwirtschaftsprodukten—der gleiche sein muss, wohin die Ware auch abgesetzt wird, so muss die Verlängerung des Exportradius mit Rücksicht auf die Erhöhung der Frachtkosten bei der zusätzlich abgesetzten Exportmenge notwendigerweise eine Senkung des Inlandspreises bewirken.* Da aber diese Preissenkung auch auf die für den Inlandkonsum abgesetzte Gütermenge Geltung gewinnt, so kann dies zur Krisenursache werden, wobei die Krise auch die privatwirtschaftliche Aufbringungsfähigkeit der Volkswirtschaft untergraben kann. Es bedeutet eine besondere Komplikation, wenn die Transportkosten im Falle einer Verlängerung des Exportradius dermassen hoch sind, dass sie mit dem Weltmarktpreis beinahe identisch werden, was bewirkt, dass das Inland nahezu keinen Devisenerlös für seinen Export erhält. So kam es gelegentlich vor, dass ungarischer Weizen zwar bis nach Rotterdam verschifft wurde, der dort erzielte Weltmarktpreis aber um kaum 30 % höher war, als die Frachtkosten von der ungarischen Grenze bis nach Rotterdam. Es ist offenbar, dass bei einer solchen Sachlage der Transfer unmöglich werden kann und hiedurch — wie wir sehen werden — auch die volkswirtschaftliche Aufbringung undurchführbar wird.

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* J. M. Keynes: *The German Transfer Problem. The Economic Journal*, March 1929. Bertil Ohlin: *Transfer Difficulties, Real and Imagined. The Economic Journal*, June 1929. J. M. Keynes: *A Rejoinder*, ebenda. Jacques Rueff: *Mr. Keynes' Views on the Transfer Problem. The Economic Journal*, September 1929. Bertil Ohlin: *A Rejoinder*, ebenda. J. M. Keynes: *A Reply*, ebenda. Gottfried Haberler: *Transfer und Preisbewegung. Zeitschrift für Nationalökonomie*, Band I, 1930. Fritz Machlup: *Transfer und Preisbewegung*, ebenda. Bertil Ohlin: *Transfer und Preisbewegung* (*Eine Entgegnung*), ebenda. August Lösch: *Eine Auseinandersetzung über das Transferproblem. Schmollers Jahrbuch*, 1930.—Ferner John Maynard Keynes: *A Treatise on Money*, Macmillan, London, 1930, I. Band, S. 340.

Jetzt wenden wir uns dem Problem der volkswirtschaftlichen Aufbringung zu. Diese Distinktion zwischen privatwirtschaftlicher und volkswirtschaftlicher Aufbringung wird meist nicht gemacht und unter "Aufbringung" schlechtweg die Ansammlung der entsprechenden Geldbeträge verstanden. Diese Begriffsgestaltung ist jedoch viel zu eng. Unter volkswirtschaftlicher Aufbringung dürfte nur ein Vorgang verstanden werden, bei welchem ein dem aufzubringenden Betrag entsprechender Teil des Sozialproduktes in Gütern der inländischen Verwendung entzogen wird. Es ist jedoch offenbar, dass dies nur in dem Falle möglich ist, falls die entsprechende Warenmenge gleichzeitig in das Ausland auch ausgeführt, transferiert wird, da ja ansonsten der entsprechende Teil des Sozialproduktes in einem grossen Warenlager angesammelt, aufgestapelt werden müsste. Dies wiederum wäre nur dann möglich, falls die Notenbank die in die Transfer- und Clearingfonds bei ihm eingezahlten Beträge für den Ankauf eines solcher Art zu errichtenden Warenlagers verwenden würde, was sicherlich ein ganz absurder Gedanke ist, da ja in diesem Falle kein Grund zu erkennen wäre, die solcher Art angesammelten Waren nicht auch gleich ins Ausland zu transportieren.

Wenn aber solch ein zur Durchführung der volkswirtschaftlichen

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* Vgl. Stefan Varga: *Die Preisbestimmungsfaktoren des ungarischen Weizens. Zeitschrift für Nationalökonomie*, Band II, 1931, SS. 780 ff.

Aufbringung erforderliches Warenlager nicht aufgespeichert wird und der Transfer gegenüber dem Auslande ebenfalls unterbleibt, falls also ein Teil des Sozialprodukts dem Inlandskonsum nicht entzogen wird, so kann von einer volkswirtschaftlichen Aufbringung nicht die Rede sein. Diese würde jedoch automatisch einsetzen, wenn die Notenbank die bei ihr sich in Transfer- und Clearingfonds ansammelnden Beträge zwar nicht zum Ankauf des besagten Warenlagers verwenden, wohl aber aus dem Verkehr ziehen würde. Dieser Vorgang würde nämlich eine Deflation verursachen,* diese Deflation aber wiederum das Preisniveau notwendigerweise in dem Masse herabsetzen, dass nach dem durch die Notenbank getätigten Entzug von Kaufkraft die verbleibende Kaufkraft die unverändert gebliebene Warenmenge des Sozialproduktes anzukaufen wieder in der Lage sei. Die hiedurch verursachten Preissenkungen würden aber — abgesehen von Friktionen, die hauptsächlich mit den Kosten und Schwierigkeiten der ausländischen Verwertung (Frachtspesen und Zölle) zusammenhängen — den Transfer wiederum in Gang setzen, also eine Folge zeitigen, die nicht angestrebt wird, wofür eben die Einrichtung der Transfer- und Clearingwirtschaft als Beweis dient.†

Aus all dem folgt, dass es einerseits ein theoretischer Fehler ist, die Probleme von Aufbringung und Transfer auseinanderreissen zu wollen, und dass es andererseits eine Notwendigkeit bildet, dass den in den Transfer- und Clearingfonds sich ansammelnden Beträgen entsprechende Summen wieder in Verkehr gebracht, ausgeliehen werden, womit jedoch selbstverständlich noch nicht gesagt werden soll, dass der Geldumlauf ständig ganz unveränderlich zu bleiben habe, da diese ja als Folge der Konjunkturveränderungen, des Ansteigens oder Herabsinkens von Produktion und Preisen automatisch anschwellen oder absinken kann. Dieser Umstand beeinträchtigt jedoch nicht die Richtigkeit der vorangegangenen Behauptung.

Falls die obige Ableitung richtig ist, müssen ihr bedeutsame Konsequenzen beigemessen werden. Diese besagen, dass sofern man den Transfer einstellt, die volkswirtschaftliche Aufbringung der dem Ausland geschuldeten Beträge ebenfalls unmöglich wird und höchstens eine privatwirtschaftliche Aufbringung weiter erfolgen kann. Im Falle dieser privatwirtschaftlichen Aufbringung, der keine volkswirtschaftliche Aufbringung entspricht, hat die Notenbank — wie erwähnt — eine dem privatwirtschaftlich aufgebrachten Betrag entsprechende Summe der Volkswirtschaft durch Ausweitung älterer oder Gewährung neuer Kredite wieder zur Verfügung zu stellen.

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* Vgl. B. M. Anderson: *The Payment of Reparations and the Receipt of Reparations*. Übersetzung im *Wirtschaftsdienst*, IX. Jahrgang, 1924, S. 639. W. Lautenbach: *Reparation und Volkswirtschaft. Zeitschrift für die gesamte Staatswissenschaft*, 79. Jahrgang, S. 257.

† Die durch einen solchen Vorgang verursachten Preissenkungen könnten nämlich die Krise weiter verschärfen und hiedurch die Leistungsfähigkeit der ungarischen Volkswirtschaft gefährden.

Dieser Vorgang übt selbstverständlich einen gewichtigen Einfluss auf die Gestaltung der übrigen Posten der Zahlungsbilanz bzw. — da Kapitaltransaktionen infolge Vertrauenmangels verhältnismässig selten und geringfügig sind, sofern sie nicht aus den, allerdings verbotenen, jedoch immerhin getätigten Rückkäufen von im Ausland abgesetzten Pfandbriefen und anderen Rentenpapieren bestehen — auf die Gestaltung der Handelsbilanz aus. Dementsprechend ist denn die ungarische Handelsbilanz auch im grossen-ganzen seit längerer Zeit ausgeglichen, ja sogar mit einem geringfügigen Betrag aktiv. Das lange Zeit währende, aber bereits aufgehörte Anschwellen der Clearingfonds, was eigentlich praktisch mit der — allerdings unfreiwilligen — Gewährung von kurzfristigen Auslandskrediten gleichbeteudend ist, besagte nur, dass entsprechende Beträge für Passivsaldi der anderen Zahlungsbilanzposten — vielleicht eben zum Rückkauf von im Ausland befindlichen Rentenpapieren, oder zur Tilgung von verschiedenen kurzfristigen Auslands-Krediten — verwendet wurden. Der durch die Theorie gelehrte Automatismus der Wirtschaftserscheinungen wirkt also. Es wäre jedoch verfehlt, hieraus nunmehr ex contrario den Schluss zu ziehen, die Anordnung des Moratoriums für die Rückzahlung und Verzinsung der kurzfristigen Auslandsschulden und den Dienst der langfristigen Anleihen sei überflüssig gewesen, da ja in diesem Fall — eben durch den jetzt dargestellten Automatismus der Wirtschaft verursacht — als Folge der durch die volkswirtschaftliche Aufbringung hervorgerufenen Kontraktion der Transfermechanismus sich automatisch in Gang gesetzt hätte. Diese Folgerung ist nämlich nur bedingt richtig. Bei einem als Folge der mannigfachsten Ursachen stark zusammengeschrumpften Volkseinkommen kann die volkswirtschaftliche Aufbringung eines Betrages, der als Folge der Preissenkungen und der Schrumpfung der Wirtschaftstätigkeit einen verhältnismässig bedeutenden Prozentsatz des Volkseinkommens beträgt, praktisch unmöglich werden, da der Lebensstandard der Inlandsbevölkerung sich nicht unter ein gewisses Niveau drücken lässt.* Dies ist ganz besonders richtig, wenn nicht bloss an den Zinsendienst, sondern auch an den Kapitalbetrag der kurzfristigen Auslandsanleihen, die die Anleihegeber gern innerhalb kurzer Zeit zurückgerufen hätten, gedacht wird. Noch bedeutsamer und im Gegensatz zur eben erwähnten Schwierigkeit nicht halb soziologischer, sondern rein wirtschaftlicher Natur ist die Frage der praktischen Möglichkeit des Transfers. Es ist überraschend, dass die sehr lehrreiche und breite theoretische Diskussion des Transferproblems solche wirklichkeitsfremden Prämissen aufgestellt hat, die sozusagen nur als erste Annäherung dienen können, und diese durch wirklichkeitsnähere Annahmen meist nicht ergänzt hat. Das Prinzip der Erhaltung der Kaufkraft im Falle seiner Übertragung ins Ausland, das bekanntlich oft als Ausgangspunkt der Erörterungen über die Möglichkeit des Transfers gedient hat, und zum Nachweis der Behauptung herangezogen wurde, der Transfer würde wohl den Lebensstandard des transferierenden Landes herabsetzen und den des empfangenden Landes erhöhen, ohne jedoch das Preisniveau zu beeinflussen, mag logisch richtig sein, solange eben keine Friktionen vorkommen. Von diesen kann man jedoch nicht absehen. Einige dieser sind in der Literatur auch behandelt worden, so die Frage der eventuell notwendig werdenden Umstellung der Produktion des transferierenden Landes, ferner — besonders ausführlich — die Wirkungen von verschiedenen Nachfrageelastizitäten in den empfangenden Ländern. Die grundlegend wichtige Frage nach der Wirkung der Transportkosten ist jedoch z.B. schon unberücksichtigt geblieben. Diese Wirkung — auf die weiter oben schon hingewiesen wurde — lässt sich im Folgenden darlegen:

Durch einen Kaufkraftbetrag, der nicht durch Inflation geschaffen wurde, sondern aus dem erzielten oder zu gewärtigenden Erlös der sozialen Produktion abgespalten und dem Ausland zur Verfügung gestellt wird, wird das Ausland in die Lage versetzt, einen Teil der Inlandsproduktion zu übernehmen. Dies ist eben das Prinzip der Erhaltung der Kaufkraft, auf die sich, bekanntlich, auch die

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* Thomas Balogh: *Some Theoretical Aspects of the Central European Credit and Transfer Crisis. International Affairs. Journal of the Royal Institute of International Affairs,* May 1932. — Ferner Sir Andrew McFadyean: *Reparation Reviewed* (Ernest Benn Limited, London, 1930), der ausführt (SS. 159–160): "Is there not reason to suspect that the abstract theory of the automatic adjustment of a country's economy to the needs of its foreign trade situation threatens to break down at this point, when we introduce into the problem a complication presented by modern social conditions."

Ricardo'sche Theorie der Gestaltung der Währungskurse gründet. Doch kann sich dies praktisch nur dadurch verwirklichen, dass das Inland Waren billiger in das Ausland absetzt, als letzteres diese selbst produzieren (bzw. aus anderen Ländern beschaffen) könnte. Die Übertragung der Kaufkraft würde nun eben im übertragenden Land jene deflatorische, im empfangenden Land aber jene inflatorische Tendenz auslösen, die zu den nötigen Preisdivergenzen führt.

Unberücksichtigt bleibt bei dieser mechanischen Auffassung die Frage der Transportkosten. Die an das Ausland einseitig übertragenen Kapitalbeträge können im Inland nicht ganz zum Ankauf von Waren verwendet werden, sondern ein Teil muss zur Begleichung der Frachtspesen verwendet werden. Diese Frachtspesen laufen teilweise im transferierenden, teilweise im empfangenden Land (mit welchem ein Durchfuhrland gleichgestellt werden darf) auf. Die Wirkung dieser Frachtspesen kann nun ganz mannigfaltig sein und es erübrigt sich, eine vollkommene Kasuistik auszuarbeiten. Im allgemeinen wird aber die Behauptung zutreffen, dass die Frachtspesen eine Verschiebung in der Kaufkraftdisposition bewirken werden, so dass diese zwar "erhalten" bleibt, aber unmittelbar nicht voll zum Ankauf von Waren dienen kann, wie früher, sondern teilweise den Frachtbeförderungsinstituten zugeleitet wird. Jetzt könnten wiederum wohl diese über die in Rede stehenden Beträge verfügen und die Volkswirtschaft könnte sich dieser Kaufkraftumleitung anpassen: eine Friktion bleibt jedoch unbehoben. Die Preise der an das Ausland als Gegenwert der einseitigen Wertübertragungen zu transferierenden Waren dürfte — von wahrscheinlich seltenen Ausnahmefällen abgesehen — fallen, um im Preis trotz der diese Waren belastenden Transportspesen zu konvenieren. Der Preisfall dieser Waren könnte sich auf Grund des Prinzips der Kaufkrafterhaltung noch kompensieren, da ja die Transportunternehmungen über neue Kaufkraft verfügen. Zu bedenken ist jedoch, dass nicht nur die Preise der individuell nach dem Ausland ausgeführten Waren fallen wird, sondern notwendigerweise die Preise dieser Warengattungen, also auch die der auch weiterhin im Inland abzusetzenden Mengen. Der dadurch entstehende Kaufkraftschwund findet aber keine Kompensation. Im Gegenteil. Die hiedurch einsetzenden Preisverluste kreisen weiter und führen zur oder verschärfen die Krise, so dass die Aufbringungs- (Leistungs-) fähigkeit der Volkswirtschaft untergraben wird.

Die Gefahr solcher Weiterungen kann die Einstellung des Transfers als begründet darstellen. Noch mehr wird dies der Fall bei besonderen

Verhältnissen der ausländischen Absatzbedingungen sein. Die Tarife für den Transport zu Land sind dem Rückgang der Warenpreise auf dem Weltmarkt nicht gefolgt. Die Absperrungsmassnahmen von verschiedenen Ländern (besonders z.B. der Nachbarstaaten von Ungarn) bewirken aber, dass auf einem geographisch ausgedehnteren Gebiet als früher nach Absatzmärkten gesucht werden muss, sollten nur die früheren Mengen, von noch grösseren gar nicht zu reden, exportiert werden. Auch dies kann zu einer praktischen Unmöglichkeit führen. Beim ungarischen Export kam es — allerdings mit Hilfe und als Wirkung von Regierungssubventionen — vor, dass der Erlös kaum höher war, als die ausländischen Unternehmungen zu zahlenden Frachtspesen. Eine Ausdehnung des Exportes kann bei einer solchen geographischen Gliederung der ausländischen Nachfrageelastizität also praktisch unmöglich werden. Der Import lässt sich ebenfalls nicht über ein gewisses Mass hinaus beschränken. Gewissen Rohstoffen, aber auch manchen anderen Waren kann ein Land mit einer gegebenen Kultur- und Wirtschaftsstufe nicht ganz entsagen. So kann — trotz der dieser Sachlage entgegenstehenden theoretischen Auffassung — das Entstehen eines einseitige Wertübertragungen ermöglichenden Exportüberschusses unter gewissen Verhältnissen als unmöglich erscheinen.

Da aber, wie eingangs dargelegt, in diesen Fällen, in denen also der Transfer zu sistieren ist, höchstens an die Aufrechterhaltung der privatwirtschaftlichen Aufbringung gedacht werden kann, die volkswirtschaftliche Aufbringung aber unmöglich wird und — eben im Fall der Weiterführung der privatwirtschaftlichen Aufbringung — deshalb durch die Notenbank neue Kredite zu gewähren sind, stellt sich die Frage, für welche Zwecke diese Kredite zu widmen sind, damit sie der Volkswirtschaft möglichst grossen Nutzen bringen. Zu bemerken ist nur, dass es offenbar volkswirtschaftlich gesehen gleichgültig ist, ob die den privatwirtschaftlich aufgebrachten Beträgen entsprechenden neuen Kredite aus den zur Ansammlung jener Beträge bestimmten Transfer- und Clearingfonds gewährt werden, oder aber ob diese Fonds unberührt gelassen werden und das eigentliche Wechselportefeuille erhöht wird.

Nimmt der Staat Beträge in Anspruch, die den durch ihn in den Transferfond eingezahlten Beträgen entsprechen, so wird dies volkswirtschaftlich gesehen damit gleichbedeutend sein, als würde er diese Beträge überhaupt nicht einzahlen. Natürlich macht es keinen Unterschied, ob der Staat die Anleihe direkt aufnimmt, oder aber mit Rücksicht auf rechtliche Vorschriften betreffs der Geschäftsgebahrung der Notenbank oder mit Rücksicht auf mit dem wirtschaftlichen Herkommen zusammenhängende psychologische Erwägungen indirekt, z.B. durch Rediskontierung von zuerst durch verschiedene Unternehmungen girierten Schatzscheinen (was in Ungarn erfolgt) in Anspruch nimmt. Die Lage ändert sich jedoch, falls der Staat beschliessen sollte von der Notenbank jene Kredite in Anspruch zu nehmen, die notwendig sind, um der Deflation, die durch das Ansammeln von Transfer- und Clearingfonds entstehen könnte, ein Gegengewicht zu bieten. Falls er diese Beträge nicht zur Deckung eines etwa drohenden Budgetdefizits benötigt, so kann er sie dazu verwenden, um die Rahmen seines Budgets auszuweiten und neue, ursprünglich nicht geplante öffentliche Arbeiten zu finanzieren, um hiedurch die grosse Arbeitslosigkeit zu mindern, ja noch weitergehend hiedurch auch den Versuch einer Ankurbelung der Wirtschaftstätigkeit zu unternehmen, was ja auch im Interesse der Auslandsgläubiger steht, da die Leistungsfähigkeit der Volkswirtschaft auch bezüglich des Transfers wächst, falls ihre Produktionskapazität besser ausgenützt ist. Diese Möglichkeit ist jedoch mit der anderen zu vergleichen, bei welcher der Staat die in Rede stehenden, keineswegs inflatorischen, sondern nur der sonst drohenden Deflation entgegenwirkenden Kredite in Anspruch nimmt, diese jedoch nicht zur Finanzierung von neuen, innerhalb des ursprünglichen Budgetrahmens nicht vorgesehenen öffentlichen Arbeiten, sondern dazu verwendet, sein Steuererfordernis herabzusetzen, um auf diesem Wege — der Senkung der Steuerlasten — den Versuch einer Ankurbelung der Wirtschaftstätigkeit zu machen.

Geldtechnisch macht es natürlich keinen Unterschied, ob die Notenbank die in Rede stehenden Kredite an den Staat, bzw. andere öffentliche Körperschaften, oder aber an Privatunternehmungen gewährt. Im letzteren Falle ist es jedoch nicht gleichgültig, ob diese Kredite von jenen Unternehmungen zur Ausweitung ihres früheren Kreditrahmens in Anspruch genommen werden, die eben zur Aufbringung der sich in den Transfer- und Clearingfonds ansammelnden Beträge verhalten wären. In diesem Falle nämlich wäre nicht bloss die volkswirtschaftliche, sondern auch die privatwirtschaftliche Aufbringung aufgehoben, bzw. zu einer Scheinaufbringung verschoben, was zu sicher nicht wünschenswerten Weiterungen führen könnte. Dieser steht die andere Möglichkeit gegenüber, dass die Schuldner wohl zur privatwirtschaftlichen Aufbringung verhalten werden, die zur Abwehr der als nicht wünschenswert bezeichneten Deflation erforderlichen neuen Kredite jedoch an Unternehmungen gewährt werden, die in der Lage sind ihren Wirtschaftsrahmen im Falle der Ermässigung der Zinssätze, — die ja notwendige Vorbedingung jeder Kreditausweitung ist, unabhängig davon, wodurch diese Kreditausweitung entsteht, — entsprechend auszuweiten. Diesen Möglichkeiten stehen aber Schranken gegenüber, die z.B. in Ungarn in letzterer Zeit sich bereits sehr empfindlich fühlbar gemacht haben. Der Kreis von jenen Unternehmungen, der bezüglich der Gewährung von neuen Krediten in Frage kommen kann, hat sich teilweise als Folge der Krise stark verengt. Daher bildet es im Grunde genommen nicht bloss ein Erfordernis des Staatshaushaltes — mit Rücksicht auf sein Defizit —, sondern geradezu eine Notwendigkeit des Geldmarktmechanismus, dass der Staat einen beträchtlichen Teil der in den Transfer- und Clearingfonds sich ansammelnden Beträge in Form von Anleihen in Anspruch nimmt. Dies führt noch nicht zur Inflation, sondern bedeutet bloss eine Abwehr einer sonst entstehenden Deflation.

Wie wir sehen, führt das Transfermoratorium und die Clearingwirtschaft, besonders aber das Ansammeln von bedeutenden Beträgen in Transfer- und Clearingfonds zu Problemen, deren richtige Lösung die Gestaltung des Wirtschaftslebens und damit im Zusammenhang auch die künftige Leistungsfähigkeit der Volkswirtschaft weitestgehend beeinflusst.

LA TEORIA DELLA MONETA SECONDO W. LAUNHARDT

GUSTAVO DEL VECCHIO, *R. Università di Bologna*

NELLA collezione di libri sopra la questione del bimetallismo, già di proprietà dell'insigne economista italiano Enrico Cernuschi ed ora della Università L. Bocconi di Milano, trovasi uno scritto che ho ragione di credere generalmente ignoto e che al contrario sembrami per diverse ragioni meriti di essere sottratto a tale assoluto ed ingiusto oblio.

Il libro s'intitola *Das Wesen des Geldes und die Währungsfrage von* W. Launhardt *Geh. Regierungsrath und Professor an der Tecnischen Hochschule zu Hannover* — Leipzig, Verlag von Wilhelm Engelmann 1885.

Ritengo ignoto il libretto, che contiene una teoria matematica della moneta, perchè la stessa copia da me trovata era ancora intonsa, nè mi consta che sia rammentata nelle molte opere sopra la teoria matematica dell'economia politica e sopra la teoria della moneta, che ho avuto occasione di consultare nel corso dei miei studi. Lo stesso Weinberger nella sua diligente *Mathematische Volkswirtschaftslehre*, dove pure del L. è forse per la prima volta trattato in modo abbastanza ampio, non fa cenno di questo scritto. Nè l'altra copia, che dal catalogo stampato appare trovarsi nella biblioteca della *London School of Economics* pare abbia servito in alcun modo a farla conoscere.

Invero la stessa posizione del Launhandt nella storia della scienza è del tutto particolare. Per ragione di sede e del genere di scuola, nella quale insegnava, conobbe ed apprezzò forse per il primo in Germania l'economia matematica non solo del Jevons ma anche del Walras. Oltre lo scritto sulla moneta, del quale diremo in seguito particolarmente, egli lasciò una *Mathematische Begründung der Volkswirthschaftslehre* (Lipsia 1885) e degli scritti sopra l'economia ferroviaria tra i quali specialmente notevole la *Teoria della formazione delle tariffe ferroviarie* (1890) tradotta in italiano da A. Cabiati nella IV serie della classica Biblioteca dell'Economista. Non è facile dare un giudizio equo sui loro meriti. Il primo, di carattere generale, se contiene un ampio riconoscimento delle sue fonti nella prefazione, è del tutto privo di citazioni nel testo e pertanto richiederebbe una speciale indagine per appurare se contenga in confronto di esse qualche novità sostanziale. Gli scritti sopra l'Economia ferroviaria sembrano contenere più originali contributi ed è strano che non abbiano avuto maggiore fortuna: non è peraltro da escludere abbiano servito in qualche modo di spunto al Barone per il suo corso sopra l'*Economia dei Trasporti*, tuttora limitato alla tiratura litografica ma noto per il primo capitolo pubblicato nel *Giornale degli economisti* del 1921.

Il Launhardt, se anche per questi scritti figura nelle bibliografie, si può dunque considerare un autore del tutto trascurato, tanto che non appare sino ad ora neppure nei grandi dizionari di Economia.

La trascuratezza delle opere maggiori contribuisce appunto a spiegare l'ignoranza di quella sopra alla moneta. Ma a tale ignoranza ha d'altra parte certamente contribuito anche il suo titolo, che fa supporre trattarsi di uno di quegli innumerevoli scritti, privi di duratura importanza, comparsi durante la controversia sul bimetallismo nell'ultimo quarto del secolo passato.

Per il lettore che non l' ha sott'occhio crediamo utile di riprodurne l'indice così come in seguito faremo per alcuni passi più notevoli: *Vorwort*. 1. *Einleitung*. 2. *Der Werth*. 3. *Der Nützlichkeitsgrad*. 4. *Der Tausch*. 5. *Das Geld*. 6. *Das Kapital*. 7. *Die Preisbildung*. 8. *Die Menge des umlaufenden Geldes*. 9. *Die Währung*. 10. *Die Währungsfrage in Deutschland*. Sopra 80 pagine solo 10 corrispondenti all'ultimo paragrafo sostengono la tesi concreta della convenienza per la Germania di attenersi al monometallismo aureo e non al bimetallismo, e quasi tutto il volume è dunque una trattazione astratta e generale dei problemi economici della moneta.

La lettura del libretto è alquanto sconcertante. Terminologia spesso arbitraria, mancanza di precisione nelle definizioni, poca logica nelle dimostrazioni, i punti fondamentali espressi in forma del tutto sommaria, mancanza apparente di legame tra le varie trattazioni; tutti i difetti che si possono riscontrare nella redazione di un'opera di teoria economica si riscontrano in questa e debbono avere allontanato i pochi lettori che essa può avere avuto al suo apparire. Non sarebbe dunque il caso di richiamare ora l'attenzione sopra di essa, se d'altra parte non avesse fondate ragioni per aspirare alla qualifica di essere la prima trattazione della moneta dal punto di vista della Economia pura. Indipendentemente dai suoi precedenti, dei quali diremo tra poco, e dal fatto che non abbia avuto seguito quando uscì un mezzo secolo fa, nè possa averne ora dopo che la materia è stata ripresa in esame da altri scrittori e con maggiore efficacia e fortuna, merita pertanto come gli altri scritti dello stesso autore ed anzi più di essi di essere rammentato nella storia della Scienza economica.

Premettiamo alla riproduzione delle sue tesi fondamentali alcune osservazioni che serviranno a chiarirne la reale portata.

(1°) Nello scritto di carattere generale *Math. Begründung*, la cui prefazione porta la data del 1° marzo 1885, il paragrafo 13 dedicato alla moneta, non fa che esporre la teoria quantitativa. *Das Wesen des Geldes* è di poco posteriore, portando la data dell'ottobre dello stesso anno, ed è orientata in modo del tutto opposto, come vedremo.

(2°). Il L. cita Jevons e il Walras anche in quest'opera, ma non gli scritti monetarî classici dell'uno e dell'altro. Che li abbia conosciuti appare certo peraltro dalla lettura del suo stesso scritto.

(3°) A parte il Jevons il cui classico libro sopra la *Moneta ed il Meccanismo dello Scambio* si potrebbe definire una trattazione *tecnica* piuttosto che *economica* dell'argomento, è noto come dal 1880 e proprio in occasione della questione del bimetallismo il Walras era venuto pubblicando una serie di indagini matematiche in materia, che nel 1886 diede luogo ad un suo primo scritto di carattere generale. Più tardi seguirono da parte sua altre ricerche ed altre sistemazioni logiche sino a che venne alla definitiva redazione costituente le lezioni 29 e seguenti della IV edizione degli *Éléments d'Économie Politique Pure.** E' possibile ammettere che il L. non conoscesse di questa serie di opere quelle anteriori alla sua e concepite sopra le stesse direttive formali e sostanziali da lui seguite?

(4°) Per tutti questi motivi non ci sentiamo di dare sull'opera un giudizio di merito, anche perchè l'esatta determinazione del punto cui era giunta la teoria Walrassiana della moneta, quando apparve lo scritto del Launhardt, è resa oltremodo disagevole dal fatto che manca un'edizione complessiva degli scritti del grande economista francese tuttora dispersi in collezioni quasi impossibili da consultare.

Nella breve introduzione troviamo cosi indicata la ragione delle indagini teoriche dell' a.†

> Zur Beurtheilung der Währungsfrage schien mir vor Allem eine Widerlegung der weiterverbreiteten Anschauung erforderlich, dass das Geld nichts anderes als eine Waare sei und sein Preis wie der aller übrigen Waaren von seiner Menge abhänge. Dem gegenüber musste die Thatsache erwisen und hervorgehoben werden, dass bei freier offener Währung die Geldeinheit zu einem unveränderlichen Maassstab für alle Preise wird, wie beispielsweise das Meter für die Raumgrössen.

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* Cfr. i nostri *Principî della teoria economica della moneta nel Gio; degli econ*, 1909 (ora in *Ricerche sopra la teoria pura della moneta* in *Annali di Economia*, 1932) e. A. W. Marget, *Léon Walras and the Cash-Balance Approach to the Problem of the Value of Money* in *Journ. of Pol. Ec.*, ottobre 1931.

† pagine v–vi.

Die Herleitung der Gesetzmässigkeit, nach welcher sich die Güterpreise, die Höhe des Lohnes, des Zinses, der Bodenrente und des Unternehmergewinnes ganz unabhängig von der Menge des vorhandenen Geldes bilden, erforderte eine Kurze Wiederholung der in meinem Buche "Mathematische Begründung der Volkswirtschaftslehre" ausführlicher entwickelten Begriffsfeststellungen des Nützlichkeitsgrades und der Preiswürdigkeit sowie des Satzes vom Gleichgewichte des Haushalts.

Erst nach Feststellung dieser Thatsachen konnte die Währungsfrage in vorurtheilsfreie Betrachtung gezogen und der Nachweis geführt werden welchen ernsten Gefahren Deutschland durch Einführung der Doppelwährung ausgesetzt werden würde.

Facciamo seguire, come abbiamo detto, i passi più notevoli della trattazione.

Das Gut, welches . . . nicht für den eigenen Bedarf erworben, sondern auf Lager genommen wird, in der Absicht, gegen andere gewünschte Güter wieder ausgetauscht zu werden, bildet das Tauschmittel.*

Man sagt gewöhnlich, das Tauschmittel bilde den Werthmaassstab für alle anderen Güter. Das ist aber unrichtig, denn der Werthmaassstab bleibt stets die Arbeit, welche man zur Erwerbung einer neuen Einheit eines Gutes für angemessen erachtet, also der Nützlichkeitsgrad desselben. *Das Tauschmittel bildet nicht den Werthmaassstab für die Güter, sondern liefert die Preiseinheit für dieselben. Nach dem, auf Grund der Wertschätzung und der vorhandenen Menge der Güter, einschliesslich des als Tauschmittel dienenden Gutes, bestimmten Nützlichkeitsgrade ergiebt sich das Preisverhältniss der Güter, wonach der absolute Preis der Güter feststeht, sobald man den Preis irgend eines Gutes als Einheit annimmt.*†

Die Begriffe "*Tauschmittel*" und "*Geld*" hält man fast allgemein für gleichbedeutend, was als eine der Quellen der so verbreiteten irrthümlichen Auffassung der Bedeutung des Geldes erscheint. Zwieschen "Tauschmittel" und "Geld" besteht in der That ein sehr wesentlich in Betracht kommender Unterschied.‡

Das Tauschmittel behält alle Eigenschaften der Waare; es kann je nach Bedarf jeder Zeit als Waare oder als Tauschmittel verwendet werden. . . . Mit der Verwendung der Edelmetalle oder selbst des Kupfers als Tauschmittel änderte sich diese Sachlage aber bald, seit man für den Zweck des Tausches die Metalle in Ringe goss, und in noch entschiedenerem Maasse, als man es in Münzen ausprägte. *Die Münzen wurden der Verwendung als Waare entzogen, für welche nur der nicht gemünzte Rest des Metallvorraths übrig blieb. Es trat eine Trennung des Gesammtvorraths des Metalls in Waare und Tauschmittel ein und dadurch wurde das Tauschmittel zu Geld.*

Das zu Geld ausgeprägte Metall bot dadurch den Prägestempel eine Gewähr für ein bestimmtes Gewicht und für einen bestimmten Feingehalt, war also, weil die Prüfung des Gewichts und Feingehalts in Wegfall kann, weit bequemer im wirtschaftlichen Verkehr als das ungemünzte Metall und musste deshalb auch etwas höher als dieses geschätzt werden. Da aber die Prägekosten im Vergleich zum Werthe des Edelmetalls sehr geringfügig sind, so musste die höhere Werthschätzung des gemünzten Metalles zu gesteigerter Ausprägung und Vermehrung des Geldes führen. Dies fand aber seine

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* pagina 16. † pagina 17. ‡ pagina 18.

Begrenzung, da mit der Verminderung des zur Verwendung als Waare verbleibenden Restes des Metalls der Waarenpreis desselben sich erhöhen und daher bald den erhöhten Preis des gemünzten Metalls erreichen musste, so dass eine weitere Prägung sich nicht mehr als lohnend erwies.*

Nachdem nun geschildert ist, in welcher Weise die Gesammtmenge des Goldes sich in Geld und Waare scheidet, wobei für die beide gleiche Preis in Vergleich zu dem früheren Zustande eine kleine Erhöhung erfahren hat, bleibt zu untersuchen, was bei später eintretender Veränderung der Gesammtmenge des Goldes vor sich geht.†

Wird die durch Verschleiss und Verluste entstehende Verminderung der in Waarenform verbliebenen Goldmenge durch Neugewinnung von Gold nicht gedeckt oder vermindert sich die auf den Kopf der Bevölkerung entfallende Menge des Waarengoldes durch eine Vermehrung der am Besitze der Goldwaare Theil nehmenden Bevölkerung, so muss der Waarenpreis der Goldes sich erhöhen. Dies muss sofort Veranlassung werden, Goldmünzen einzuschmelzen, um sie für den höher gewordenen Waarenpreis des Goldes zu verkaufen, bis auf solche Weise die Menge des Waarengoldes bis auf das frühere Maass erhöht und dadurch der frühere Preise des Waarengoldes wieder hergestellt ist. . . . Der Erfolg ist also, dass die auf den Kopf entfallende Menge des Waarengoldes wieder das frühere Maass erreicht, dass der Preis des Geldes und des Waarengoldes wieder der gleiche und frühere wird, dass aber die Menge des Goldgeldes eine Verminderung erfährt.

Uebersteigt nun umgekehrt die Menge des neu gewonnenen Goldes den Verschleiss und Verlust des Goldes in solchen Maasse, dass die auf den Kopf entfallende Menge des Waarengoldes sich erhöht, so muss der Waarenpreis des Goldes sinken. Es wird nun vortheilhaft, das billigere Waarengold in Goldmünzen auszuprägen und es wird dies in solchem Maasse geschehen, bis dadurch die Menge des Waarengoldes sich so verringert hat, dass es wieder auf den alten Preis gleich der Höhe des Goldpreises gestiegen ist. . . .

Bei der in Betrachtung gezogenen Vermehrung des Geldes wird also die auf den Kopf kommende Menge des Waarengoldes unverändert bleiben, auch den Preis des Goldgeldes und des Waarengoldes wird übereinstimmend und unverändert sich erhalten, aber die Menge des Goldgeldes wird sich vermehren. Also *bei jeder Veränderung der Gesammtmenge des Goldes bleibt der Preis des Geldes unverändert, aber die Menge des Geldes ändert sich.*‡

Bei allen diesen Änderungen bleibt, so lange die Währung nicht geändert wird, der Preis des Goldes stets unverändert, da er stets dem Waarenpreise des Währungsmetalls gleich bleiben muss und da dieser nicht sinken kann, ohne sofort durch Neuausprägungen wieder auf den alten Stand gebracht zu werden, und sich nicht erhöhen kann, ohne sogleich durch Einschmelzungen von Gold auf den alten Stand zurückgeführt zu werden.

Die auf der stetigen Ausgleichung der in Geld und in Waarenform vorhandenen Mengen des Währungsmetalls beruhende Unveränderlichkeit des Goldpreises, wodurch das Gramm Gold zu einem ebenso unveränderlichen Maassstabe für die Güterpreise wie das Meter für Raummaasse und Gewichte geworden ist, lässt sich mit dem Stande der Flüssigkeit in der beiden Schenkeln einer kommunizirenden, das heisst einer hufeisenförmig gebogenen, mit den Schenkeln nach oben gerichteten Röhre vergleichen, durch welche in jeder Lage unverändert der Horizont angegeben wird.

Es bleibt nun zu untersuchen, wie sich unter dem Einflusse der Verände-

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* pagina 19. † pagina 20. ‡ pagina 22.

rungen der Menge des Geldes, oder genauer des Währungsgeldes, die gesammten wirtschaftlichen Verhältnisse gestalten, zu welchem Zwecke zunächst Erörterungen über Kapital und Zinzfuss und über die Gesetze der Preisbildung verzunehmen sind.*

Basta la lettura di questi brani, testualmente riportati, i quali si trovano tutti concentrati in sole 10 pagine dello scritto del Launhardt per mostrarne insieme con la innegabile ingegnosità l'unico ma fondamentale errore. Da un'oscura coscienza che egli ha della falsità della teoria quantitativa della moneta, come del resto altri scrittori, è stato tratto a concludere che il valore della moneta sia indipendente dalla sua quantità. Ora la prima proposizione è esatta non soltanto nel senso che oltre le variazioni nella quantità di moneta molte altre circostanze ne modificano il valore, ma anche nel senso che la stessa quantità di moneta piuttosto che causa di tali variazioni deve considerarsi il fatto, attraverso il quale si fanno sentire quelle che ne sono le cause da mettere in evidenza. Ma da ciò ad asserire che la quantità di moneta può variare senza che *ceteris paribus* ne cambi il valore, significa affermare due proposizioni del tutto diverse da queste e tanto false quanto esse sono vere: e cioè che tra le varie cause che fanno variare il valore della moneta non ci sarebbe la sua quantità e che non opererebbero sul valore della moneta le cause di variazione della sua quantità.

Occorre altresì osservare come nel sistema dell'equilibrio economico basta porre una condizione falsa perchè *tutto* il sistema ne risulti interamente falsato, al contrario di quanto accade nei sistemi empirici di economia, nei quali premesse arbitrarie e fallaci possono essere corrette da quella stessa mancanza di rigore logico, che ne costituisce la caratteristica ed il difetto fondamentale, e per la quale mancanza, proposizioni vere possono essere tratte ad errate conseguenze così come premesse errate possono non escludere conclusioni giuste.

Ciò rende ancora più deplorevole d'altra parte la trascuratezza, nella quale questo scritto è rimasto al momento del suo apparire. Per la forma rigorosa dell'esposizione sarebbe stato abbastanza facile fino da allora correggerne l'errore fondamentale e forse sarebbe stato così di molto anticipata la formulazione della teoria generale dell'equilibrio e della dinamica monetaria, che il Walras ed i suoi seguaci dovevano iniziare molti anni dopo. La elaborazione poi che la costruzione fondamentale del Launhardt trova nei capitoli seguenti del suo scritto, che non è priva di asserzioni alle quali difficilmente il critico può oggi sottoscrivere, dimostra in genere abilità nello scegliere i più sicuri risultati della dottrina monetaria tradizionale e sicurezza nella loro costruzione in una teoria comprensiva dei più lontani rapporti della circolazione e del sistema economico in genere. Tutto ciò merita l'attenzione dello storico anche se non contiene ormai elementi nuovi per noi che abbiamo conseguito i successivi progressi nella teoria economica della moneta.

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* pagina 26.

D'altra parte le teorie monetarie delle Scuola matematica stentano tanto a farsi strada anche fra gli economisti di professione, che ancora possono considerarsi poco note nel ceto di coloro presso i quali avrebbero dovuto incontrare un più vivo interesse e determinare un più energico riflesso di studî e di discussioni. La lettura di questo trattatello, vecchio ormai di mezzo secolo è tanto più da raccomandare in quanto costituirà non soltanto uno svago erudito ed un giusto omaggio ad un ardito tentativo teorico, ma anche l'incitamento e l'occasione per una considerazione della moneta e dei suoi problemi più adeguata di quella tuttora generalmente professata anche da egregi studiosi.

PUBLIC PRICE POLICY

F. ZEUTHEN, *University of Copenhagen*

I. THE INCLUSION OF INTEREST IN COSTS AND THE PRINCIPLE OF SCARCITY

WITHIN the administration of public utilities, railways, electricity works, and similar undertakings, there are still staunch adherents of the principle of treating interest as a constant cost. Generally, this principle means that the rates are fixed and the working of the enterprise arranged in such a way that over and above the variable costs a definite annual amount is obtained as interest on the invested capital. The amount of interest desired is determined by the capital originally invested, reduced by normal depreciation and possibly modified by occasional revaluations of a more or less casual nature.

This principle is asserted to be the most consistent with sound economy and private enterprise. There is a free choice of consumption, and everyone pays for just the cost incurred by him. The claim for the inclusion of interest in costs forms a bulwark against political demoralization: on the one hand an undue preference of certain classes of consumers at the expense of the taxpayers as a whole, and on the other hand against an arbitrary indirect taxation and the resultant artificial limitation of the supply.

If we were living in a community with constant prices, an unchanging technique, and an evenly increasing demand for public services, and if the growth of these was accompanied by a proportional increase of all items of cost, which made it possible to extend the capacity of the works evenly and gradually, then the simple inclusion of interest in costs would certainly work very satisfactorily. Still, there would be certain limited exceptions: opportunities of indirect taxation or "artificial" furtherance or curtailment of certain types of consumption (education, alcoholic liquors), justified either by their effects on others than the consumer himself or by the latter's lack of ability to look to his own advantage in the long run. Apart from these instances the inclusion of interest in costs would, under the conditions indicated, result in a state of constant equilibrium, which could not fail to work in a very satisfactory way.

It is unnecessary to point out that actual conditions are as a rule quite different. It is just the existence of great indivisible works, extended discontinuously from time to time, generally with decreasing costs per unit, which have been the cause of public enterprise. In the example usually given, that of the bridge, the problem is quite clear. Is it right that the State, whose general aim is that of benefiting its own citizens, in order to obtain an annual income of say 100,000 Kr. by a toll on every person passing the bridge, should cut off a great deal of traffic, the value of which may certainly be estimated at several times the 100,000 Kr.? In the case of a railway, the capacity of which is only partly utilized, we may, so far as constant costs are concerned, apply similar arguments. The most acute practical problem as regards public utilities is at present whether State railways are able to pay an interest on the capital invested in them, the cause of the deficit being either the competition of motor traffic, general economic depression, or that the railways in question have never had any chance of being remunerative.

It seems inconsistent on the basis of building costs or of a political decision concerning the net revenue to be obtained from the operation of the service, first to demand a fixed amount over and above the variable costs, and secondly to attempt to fix rates giving precisely this amount. By the first decision no regard has been paid to the interplay between rates and sales and the resultant effects on costs as well as on consumers. It is like dividing the solution of a number of equations containing mutually dependent quantities between two groups of persons, which means that the first group, those who have to fix the total amount to be levied, will very largely have to resort to guesswork. A mechanical calculation of this amount on the basis of building costs has no rational meaning when in the meantime there have been great fluctuations in costs of living, the different wholesale price indices, the prices of substitutes for the public service in question, variable costs, etc., and when, moreover, a totally new technique may have arisen, involving not only a new level of costs, but also a series of advantages and drawbacks to the consumers, and thereby changing the quality of the service. A recalculated building value, either written up or down, can thus be nothing but capitalization of an estimated amount which the State desires to levy, i.e. the building costs are only the apparent starting-point.

The comparison with private enterprise is only a bad argument for the claim of a regular payment of interest on the capital invested. No interest is paid on this capital in private enterprise as on debt; but investment is made on condition that a future stream of income may be expected, the capital value of which, based on the existing rate of interest, exceeds the investment costs. Whether the stream is regularly or irregularly distributed is of no importance. If it is a land speculation, the expected income is, for instance, a lump sum after ten or twenty years and nothing during the intervening years. Is it a new factory, we may have first a quickly rising and later on a slowly declining stream. Apart from the fact that the distribution in time is not even, private enterprises have no definite and fixed claim of profit, but they must base their calculations on an expected value, which is the sum of a series of probabilities of profit multiplied by the corresponding rates of profit. The consequence is that the price policy in the years after the investment is determined by all other factors but the building costs, amongst others by the size and quality of the plant. Building costs, it is true, and the resultant load of debt, or expectations on the part of shareholders, may in certain cases give a psychological impulse to a price policy which would in any case have been possible, apart from the psychological conditions; and the result may be a monopolistic limitation of sales and, consequently, an amount of unused capacity. As a rule, however, the value of shares is determined by the profit, and not vice versa.

A so-called practical argument is sometimes put forward in favour of the inclusion of interest in the payment for every year's service. It is recognized that a claim for interest based on the building costs of the past will result in an amount comparatively unrelated to the changing conditions of the market. It is asserted, however, that the essential thing is having something definite—a bulwark against democratic tendencies towards exploiting more complicated theories and facts not easily measured with a view to favouring energetic demands on the part of groups of consumers, or tendencies to prefer the interests of the moment to those of the future. These considerations no doubt contain a good deal of truth. But they do not justify the official arguments in favour of the traditional and somewhat naïve method of the inclusion of interest in costs. The economic student can at most recognize the principle as a kind of camouflage applicable in certain cases towards politicians and the public, but must at the same time admit that its rigidity can entail unfortunate effects. The question is whether the advocates of the principle do not substitute bureaucratic demoralization for the democratic one, which they want to avoid. Which of these methods produces the best results in real life will largely depend on the quality of the government and administration. Other more elastic methods require more intelligence and independence on the part of the administration than the simple inclusion of interest, a fact that argues in favour of administrative improvements.

The principle of simple inclusion of interest in costs tries to defend itself against more dangerous attacks by treating the less defensible cases according to separate rules. The main principle is applied, for instance, to State railways generally, but "Kultur railways" are singled out as a special category. A distinction is made between public trading and other public activities, which are to be dealt with according to totally different principles. Arbitrary reductions are made now and then of the invested capital, on which interest is to be paid. Nevertheless, all these distinctions appear artificial. When the State prohibits certain branches of its administration from furthering public interests in ways similar to those applied by other departments (giving free benefits and imposing taxes where the relation between public and private utility makes it desirable), it can only be as a defence against its own weakness. It is also the old inconsistent division between a number of separate funds, which requires that the gas, water, and electric works of the same municipality must each lay by a fixed yearly percentage for expansion. Thus, protected against ratepayers and money-spending departments, a public saving is accomplished, just as the managements of many stock companies accumulate hidden reserves wherever they are allowed to do so instead of having an open and uniform plan of saving. If nothing more rational could be built up in defence against arbitrariness and the avidity of sectional interests, and if it was impossible to make the administration apply more rational principles, it might be dangerous to criticize the bluff generally practised on the basis of the antiquated figures of public accounts, and which is in conformance with the tendency of bureaucracy to canonize the existing and least troublesome state of affairs. So long as nothing new can be constructed, however, the old system has a relative justification.

If, however, the primitive theory of interest and costs is abandoned, modern economic theory offers a new and better starting-point. The catchwords of costs and interest payments can certainly, after the teachings of some few decades, be substituted in the popular discussion by the far more flexible slogan, *Scarcity*, which economically has just the same sound effects, provided it is understood that the principle must not only be applied to the working of existing plants, but also to considerations of new constructions. So far there is a basis of a new price policy, due to the fact that so many of the younger generation have assimilated Cassel's principle of Scarcity (cf. also the sections on "Kollektivbedürfnisse" and Socialist price policy in *Theoretische Sozialökonomie*), have, in theory and practice, had classical conceptions of a normal price as a long-run average cleared away, and have, moreover, had the idea of Capacity substituted for belief in Continuity and Divisibility. The assertion that the principle of Scarcity is teleological does not apply here where it is a case of public planning and where one of the purposes of the price is to limit sales.

To people who have worked under the Cost principle for a lifetime, Heckscher's* term "intermittant free goods," to designate the spare capacity of public works too large to obtain full employment of capacity in the first years after the construction, may be of some help. But the whole relationship between building costs and prices calls for revision—not to say reversal.

II. PRICE POLICY

In cases where the public authorities let out means of production of a permanent character, it is natural to fix the price so as to obtain full utilization, or rather as near to full utilization as changes and irregularities permit. In the case of a railway plant or other permanent constructions similar considerations apply, though here it is necessary to charge an extra payment for operating costs. How far it is practicable for a public enterprise to approach full utilization depends on the trouble and drawbacks involved in frequent changes of rates and far-reaching discrimination. In any case, the advantage to the customers is greater when sales are as large as possible, and this fact must be of some consequence to the State, which spends money freely in order to benefit the same persons in other fields. Where demand is inelastic, however, the State may charge a higher price, and thus increase its own income, even if sales are thereby reduced so that full utilization of capacity is not reached. A rational State must here apply just the same principles as it applies to taxation of consumption, only it is much easier to make a beginning, and no special cost of administration is involved. When with the working of existing plants people learn to disregard the historically accidental limit of what the accountants consider full interest on the capital invested, it becomes unimportant whether prices in excess of variable costs are set aside as interest on investments in the plant, as interest on debt, or are used for other State purposes.

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* Of other Swedish authors, who have contributed to the discussion of the problems dealt with in this article, may be mentioned Wicksell, Bagge, and Ohlin. The capacity point of view has been strongly emphasized by the Danish authors Birck and Jantzen. A further reference may be made to J. M. Clark, *The Economics of Overhead Costs.*

Besides being modified by monopolistic principles of taxation, the scarcity price may also be modified in order to hinder or further a certain kind of consumption, or, more commercially, in order to create possibilities of future sales. In exceptional cases a price lower than the scarcity price may be fixed, if it is thought that the advantages of a cheap consumption compensates for the drawbacks of making rationing or similar measures limit sales, instead of using the price for this purpose. These are well-known exceptions, also known under a price policy in accordance with the traditional principle of including interest in costs.

The main question is, however, when and to what extent ought the State in order to raise money (for interest and other expenses alike) charge a price not permitting full utilization of plants. As we are going to explain in the next section, this does not amount to the same thing as covering the fixed costs, since a limitation in the size of plants creates a scarcity, so that the income may possibly exceed the working costs, which again may mean either more or less than full interest payments. In certain cases the problem will be of a somewhat different nature, it being impossible to obtain full utilization of plants even at a price only covering the operating expenses. Generally, however, the problem is the following: Is a public enterprise to charge only the price corresponding to full utilization of its capacity, i.e. the full capacity or the scarcity price (which, it will be understood, may very well exceed the variable costs, or even these plus full interest), or is the enterprise to charge a price above the full capacity price of the plant, a tax or monopoly price?

Each public enterprise endeavours naturally to serve public purposes, either directly, by giving customers a net advantage beyond the payment charged, or indirectly, by providing a money surplus for the Treasury to be spent in other fields. In the former case it is necessary, consciously or unconsciously, to operate with the conception of consumers' rent. That consumers' rent is not a very tangible or measurable quantity does not justify its abandonment without further consideration, since mere guessing as to the advantage of the consumers will otherwise enter as a factor into the decisions, if the authorities do not, out of theoretic aloofness, fail to pay attention to the main purpose of all public service. Both where it is a question of providing a net income for the State, and where it is a question of giving the citizens a net advantage (consumers' rent), the elasticity of demand must be taken into account. Where the operating costs are changing with the sales, this variation must also be considered. This may be done by considering the way in which the difference between demand price and costs vary with the size of sales, i.e. by considering the elasticity of the price in excess of operating costs. Irrespective of whether the operating costs are constant or not, we are in the following going to examine the elasticity of the price in excess of operating costs, which is essentially smaller than the elasticity of the demand curve itself. At a price twice as high as the operating costs, the elasticity of the excess price is half that of the demand.

Fig. 1 on page 680 illustrates the correlation between the elasticity of the excess price and the advantages to State and consumers, as well as the changes in these advantages caused by a small alteration of the price. The demand curve in its entirety will generally be comparatively unknown; a rough calculation, however, or a reasonable conjecture as to the elasticity of the part of the demand curve affected by possible changes in price affords, however, a sufficient basis for an estimate as to the effects. The result is partly determined beforehand by the character of the general demand curve, in so far as a price reduction will always entail a greater or smaller extension of sales. The figure is not only meant to illustrate the conditions in case of a definite rectilinear demand curve, but every part of the curve may be taken separately as an illustration of the effects of smaller changes in price along the whole gamut of elasticities, i.e. the component parts of all possible demand curves. The horizontal line at 0 corresponds to a price equal to the operating expenses, and the elasticities of Table 1 are based on the prices in excess of this level. This may be called excess elasticity. The capacity of the enterprise is not illustrated in the figure. It will, as a rule, be so small that full utilization corresponds to a scarcity price somewhere above the operating expenses. The figures concerning elasticity and the corresponding figures indicating the relation between increase and decrease have been computed by means of the proportion between the relative change in sales and the converse relative change in the price in excess of operating costs (cf. Table 1).

If we reduce the excess price in the figure, say from 4 to 3, and sales consequently increase from 16 to 17, the State loses 1 × 16 (the horizontally hatched area between excess prices 3 and 4), and gains at the same time 3 × 1 (the vertically hatched area between sales 16 and 17), i.e. its total loss amounts to 13. The former consumers gain the same 1 × 16 lost by the State, and the new consumers, moreover, have a small advantage, which, if the demand curve is rectilinear from sales 16 to 17, amounts to 1 × ½, the total consumers' rent being thus 16½. If we reckon with an elasticity as in the example above we shall always find that the consumers' advantage by the price reduction is about 27 % greater than the loss of the State. If the demand line is curving downwards, the percentage will be somewhat smaller, which

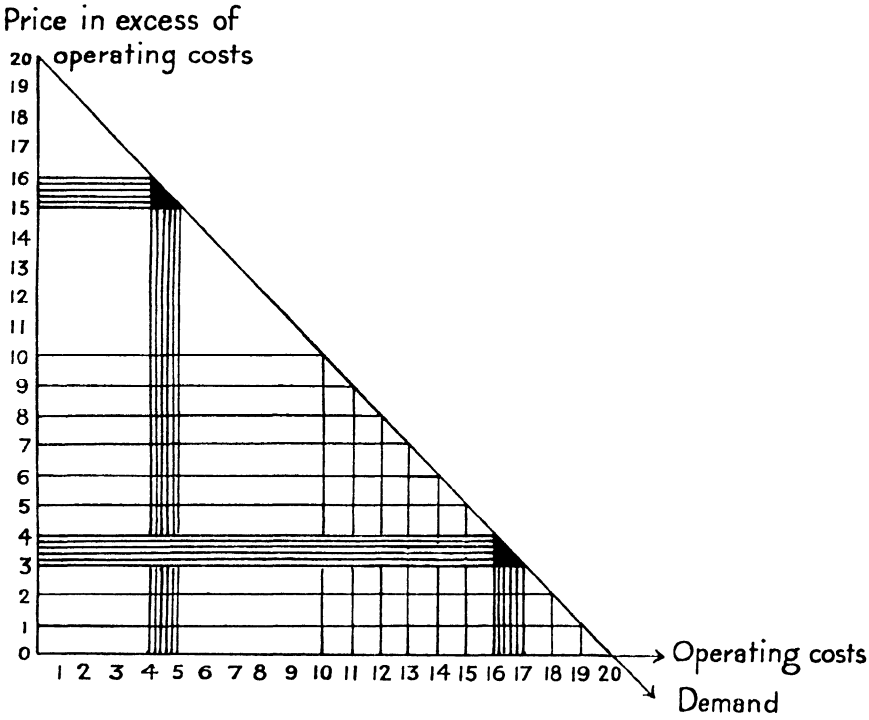

FIG. 1

may be of importance in case we do not compare small changes in price, but alternative, more distant, combinations of price and quantity.

Irrespective of all discussion of consumers' rent, we assume that, *if* it is a question of smaller changes, and *if* only a small part of the total consumption is involved, an essential importance attaches to the difference between the money the consumers pay or are willing to pay under two different price conditions. We are not going to deal with the question of consumers' rent measured in terms of utility, and the possible corrections of the general principles in accordance with the income level of different classes of consumers.

TABLE I

Excess Price	Sale	Excess Elasticity	Profit	Decrease	Consumers' Rent	Increase	Relation between Increase and Decrease	Total Net Advantage	Increase
16	4		64		8			72	
		$3\frac{3}{4}$		—11		$4\frac{1}{2}$	—0·4		$15\frac{1}{2}$
15	5		75		$12\frac{1}{2}$			$87\frac{1}{2}$	
10	10		100		50			150	
		$\frac{9}{10}$		1		$10\frac{1}{2}$	10·50		$9\frac{1}{2}$
9	11		99		$60\frac{1}{2}$			$159\frac{1}{2}$	
		$\frac{8}{11}$		3		$11\frac{1}{2}$	3·83		$8\frac{1}{2}$
8	12		96		72			168	
		$\frac{7}{12}$		5		$12\frac{1}{2}$	2·50		$7\frac{1}{2}$
7	13		91		$84\frac{1}{2}$			$175\frac{1}{2}$	
		$\frac{6}{13}$		7		$13\frac{1}{2}$	1·93		$6\frac{1}{2}$
6	14		84		98			182	
		$\frac{5}{14}$		9		$14\frac{1}{2}$	1·61		$5\frac{1}{2}$
5	15		75		$112\frac{1}{2}$			$187\frac{1}{2}$	
		$\frac{4}{15}$		11		$15\frac{1}{2}$	1·41		$4\frac{1}{2}$
4	16		64		128			192	
		$\frac{3}{16}$		13		$16\frac{1}{2}$	1·27		$3\frac{1}{2}$
3	17		51		$144\frac{1}{2}$			$195\frac{1}{2}$	
		$\frac{2}{17}$		15		$17\frac{1}{2}$	1·17		$2\frac{1}{2}$
2	18		36		162			198	
		$\frac{1}{18}$		17		$18\frac{1}{2}$	1·09		$1\frac{1}{2}$
1	19		19		$180\frac{1}{2}$			$199\frac{1}{2}$	
		0		19		$19\frac{1}{2}$	1·03		$\frac{1}{2}$
0	20		0		200			200	

Where the excess elasticity is larger than 1, i.e. where the price is situated above the monopoly point, the reduction in price will give the State a profit (cf. the difference between the vertically and horizontally hatched areas between prices 16 and 15 and sales 4 and 5 in Fig. 1). The consumers' interest, which does not count very much in money, is here of importance mainly because it induces the State to carry through a reduction in its own favour.

Table 1 shows that the relation between the increase in consumers' rent and the decrease in profit is gradually shifting from the monopoly point, where the changes in consumers' rent count much more (with assumed continuity* infinitely much more) than the converse alteration of the profit of the State, quite down to the level of the operating expenses, where profits and losses are equal. A State which in other fields spends money in order to benefit its citizens has, consequently, at a small expense, an opportunity of giving them essentially greater advantages by fixing the price somewhat below the monopoly point (the excess price 10 in the figure). If, on the other hand, the collection of taxes involves direct expenses and indirect inconveniences, the State will only in exceptional cases charge a price covering no more than the variable costs, whereby the estimated advantage to the consumers would be no greater than the loss to the State. It is only possible to say, for instance, that a rational state, if scarce capacity has not made it charge a higher price, will desire to reduce the price to a point where the increase in consumers' rent is 10–100 % greater than the loss in profit (cf. Marshall's "compromise benefit curve," formed by adding half the consumers' rent to the profit of the State, *Principles*, V, XIV, 7). This tells us, however, that the price must be fixed at a point where the excess elasticity is between one-eleventh and one-half. However uncertain this may be, it affords, nevertheless, a reasonable argument for stopping somewhere between the monopoly point and the variable costs, and in case the State only reckons with a small expense for the collection of taxes, nearest to the latter price. When demand falls according to a decreasing gradient, as it will presumably do in most cases, we may have to continue with the price reductions still further down than illustrated in the figure. There is no reason to expect, however, that the demand curve should asymptotically approach a price corresponding to the operating costs; and since this is not the case, the excess elasticity must in the end be very small. The increase in price thus made possible may still be so small, however, as to be without practical importance. Whereas Marshall applies a demand curve, we in this article only assume known or conjectured points or combinations between price and quantity; only in such cases where the alternative points are situated at some distance from each other is it desirable to make an approximate correction in accordance with the presumed shape of the intermediate part of the curve. Whereas Marshall considers the total consumers' rent, only changes in it are considered here.

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* If the proportion between the increase in consumers' rent and the decrease in profit is r, and the excess elasticity e, we obtain, with assumed continuity, $r = 1:(1-e)$ and $e = (r-1):r$.

The purpose of the above calculation is to find an equilibrium between the interests of the Exchequer and the citizens respectively, the finance-equilibrium price, the taxation or monopoly price, which provides interest payments on this and other plants as well as means for all other State purposes. As mentioned above, this price is only applicable when it is situated above the full-capacity or scarcity price, which constitutes a minimum payment for the service. In building its enterprises, however, the State has in many cases limited the size of the plant so much that there can be no question of any increase in price above that of full capacity, which price may then be found essentially above the operating costs.

Where capacity is limited as compared with demand, the enterprise may in some cases, as for instance with regard to electricity, add a specially calculated payment for use of capacity (in kW) to the payment for operating costs (in kWh). The latter may possibly be calculated in proportion to the average or normal utilization in the period concerned, with a special addition for irregularity (cf. the telephone rates and Vinding: *Electricitätstariffe*, Copenhagen, 1933). When, as in the case of railways, there is no possibility of such a division of the price between payment for use of capacity and for direct expenses, there might be an increase in rates for the more irregular and capacity-requiring modes of consumption. The employment of separate rates for the use of capacity and operation tends to harmonize the demand of the consumers with the costs of the scarce means of production. We are not here going to deal with the problems of three- or four-dimensional demand and cost functions indicating variations in utilization of capacity and working time (or total quantity of power), nor with a possible appliance of taxation principles for both the above-mentioned kinds of payment.

If we apply the principle of including interest in costs, the distribution of fixed costs involves great difficulties. Of the first problem, the distribution of the building costs of a plant over the different years of its life, the most orthodox advocates of the principle dare at most give a partial solution by rules of unequal depreciations. But why not also distribute the interest payments over the years according to their ability to pay? As emphasized by my countryman, Niels Lindberg, the year is an astronomic, and only in certain respects an economic unit. In important respects the life of a plant is the decisive economic period.

If, however, we abandon the principle of including interest, all the years are dealt with as a whole at the time of the investment, but in the operation of the plant they are dealt with separately, since it is not now a question of distributing a definite total amount. The smaller periods, seasons, days of the week or hours, are dealt with in quite a similar way. When interest is included in costs, the administration often endeavours to distribute the fixed costs in proportion to the share of the groups in the "peak load." But would it not, then, be the best plan to aim at full utilization all the year round and both day and night? If we start on the basis of the modified Scarcity principle, the most natural thing would be, in so far as administrative expenses and trouble make it expedient, to divide the year in periods each with its special rates, with the aim of a full utilization of capacity (leaving a reasonable margin for irregularity) within each separate period. This is not true when excess elasticity makes it more convenient to increase the profit of the State, even though sales should be somewhat reduced thereby.

If the capacity is not fully utilized, or if different groups of consumers within the same period supplement each other in such a way as not to compete for the same capacity (eastward and westward bound traffic and to a certain extent heavy and light cargoes), they may be dealt with separately according to the principles described above, i.e. each according to its elasticity and possible scarcity of capacity.

When, on the other hand, two groups of consumers compete for the same scarce capacity, consumption must be limited by means of one system of prices. Whereas, when interest is included in costs, the administration has to distribute a definite sum of costs among the groups, the aim is here to distribute a scarce amount of capacity in such a way as to further the interests of both the Exchequer and the consumers in a certain proportion.

The following Table 2 gives a survey of different combinations.

TABLE 2

	Free Capacity	No Unused Capacity Limitation of Consumption Necessary
Equality of consumers' rent and profit of public enterprise.	1. A uniform price equal to operating costs.	2. A uniform increase of price in excess of operating costs, rising with limitation of consumption.
Consumers' rent is valued less than profit of public enterprise.	3. A price in excess of costs is fixed for each group separately, so that the excess elasticity becomes a definite function of the proportion between the value of consumers' rent and profit of public enterprise (cf. Fig. 1, page 680; Table 1, page 681; and the footnote page 682).	6. Capacity being limited, an equal valuation of consumers' rent and profit would tend to bring about a uniform increase of prices (cf. 2). Consumers' rent being valued less than profit of public enterprise, this tends to bring about an unequal increase of prices, determined by the excess elasticity of the groups (cf. 3). The State will, by an actual dumping policy, limiting the capacity of certain groups, try to increase its profit (cf. 5, where the words "total profits" must be substituted by the words: "total profits plus reduced consumers' rent"). See further Fig. 2 and Table 3, page 687.
Only profit of public enterprise is being considered.	4. Monopoly price for each group separately, i.e. a strong price differentiation.	5. Capacity is distributed among groups of consumers in such a way that total profits cannot be increased by any transfer of capacity.

As is apparent from the above table, the nature of the problem may vary very much, partly according to the desired proportion between profit and consumers' rent and partly according to the scarcity of capacity. The assertion that there ought not to be any price differentiation in public utilities is only true if profit and consumers' rent are given the same value, cf. cases 1 and 2 (here the top parts of all demand curves are preferred). If, moreover, we assume a free capacity, we obtain a uniform price equal to the operating costs, case 1. When the capacity is free, however, but profit is valued higher than consumers' rent in a certain proportion, the result is a price differentiation, or rather mutually independent prices for each group of consumers according to their elasticity (cf. cases 3 and 4, as well as Fig. 1 and Table 1 on pages 680 and 681). If the capacity is limited, a monopolist who pays no attention to the interests of the consumers will apply a price policy which is nearly related with dumping (cf. case 5). There the supply and prices of individual groups of consumers are not independent as in cases 3 and 4; but in distributing the capacity among the groups the State will

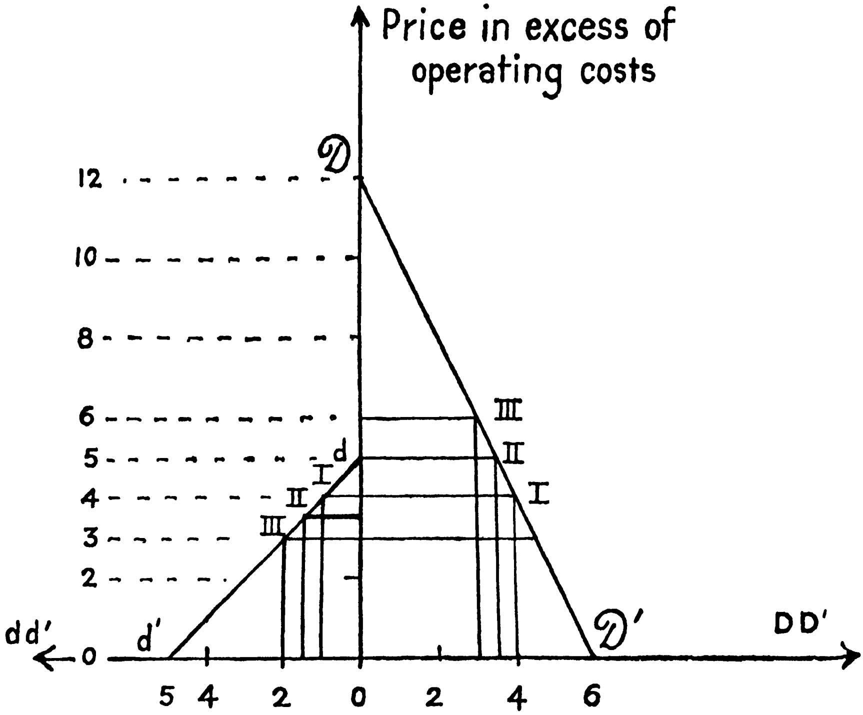

FIG. 2

consider the effects on its own profit of an increase of the capacity within one group as well as the effects of the corresponding decrease of capacity within another group.

Most cases in real life presumably belong to the very complicated group, No. 6. Capacity is here limited in relation to demand, and the State desires to benefit the consumers, though not quite so intensely as it wants to make a profit of its own. All the conditions that are present in the marginal cases are also of importance here. No doubt very different combinations will appear, partly due to variations in the two conditions dealt with in the table, and partly to the elasticity of demand, the alteration of the latter along the demand curves and the interplay between the groups occasioned hereby. I shall, however, confine myself to one strongly simplified case, from which, consequently, too general conclusions cannot be drawn.

TABLE 3

	Price		Sales			State's Profit		
	dd′	*DD′*	*dd′*	*DD′*	Total	*dd′*	*DD′*	Total
I	4	4	1	4	5	4	16	20
II	3½	5	1½	3½	5	5¼	17½	22¾
III	3	6	2	3	5	6	18	24

	Consumers' Rent			Social Advantage when Consumers' Rent is recalculated as Profit in the Proportions:				
	dd′	*DD′*	Total	1 : 1	⅘ : 1	⅔ : 1	½ : 1	0 : 1
I	½	16	16½	**36½**	33⅕	31	28¼	20
II	1⅛	12¼	13⅜	36⅛	**33½**	**31⅔**	$29\tfrac{7}{16}$	22¾
III	2	9	11	35	32⅕	31⅓	**29½**	**24**
				No. 2		No. 6		No. 5

In Fig. 2 two rectilinear demand curves *dd′* and *DD′* for two groups of consumers are plotted on either side of the vertical axis, the horizontal axis being at the level of operating costs. The total maximum capacity is 5 units. The discussion is limited to three combinations, because the rates, for practical reasons, can only be modified by definite round amounts (cf. Table 3).

It will be seen that the uniform price 4 gives the greatest social advantage when the same weight is attached to consumers' rent and the profit to the State (cf. line I); on the other hand, an exclusive regard to the latter in the example will result in the strongest price-differentiation (cf. line III and case 5 in Table 2). Where partial regard is paid to consumers' rent (case 6 in Table 2) the result is a policy between the two extremes. Since the capacity of the undertaking given in the example is strictly limited, the price is situated at points representing considerably greater excess elasticities than in Table 1 on page 681, and different elasticities for the two demand curves. When we pass from line I of the example to line II, it is seen that the reduction of the capacity which is placed at the disposal of *DD′* contributes strongly to increasing the profit.

III. BUILDING POLICY

The question may now be put whether it is not a dangerous policy to reduce the price in order to get full utilization (apart from the taxation cases), even if in this way the State will get no interest on its building costs. Will the result not be a superfluity of constructions, which are unremunerative, also when consumers' rent and indirect advantages are taken into consideration? There is a danger, it is true, that interested circles will put forward unreasonable demands, knowing that in the future prices will be lower when capacity is abundant. The realization is thus to a certain extent dependent on the organization of the State. Therefore the advantages of a good system of rates and a satisfactory utilization of public works are a strong inducement to strengthen the efficiency of its organization and its power of resistance to sectional interests. Wicksell recommends a collection of contributions immediately at the time of the investment among landowners and other people interested in the construction, which would limit the demands and costs of investment.

If the principle of including interest in costs is given up, and the corresponding limitation of the capital bound in public services, it is necessary to emphasize the claim for interest at the moment of investment. There must be an expectation that the plant, so long as it lives and with the best possible rate policy at any moment, will give a total surplus in excess of operating costs, the capitalized value of which covers the building costs. In this surplus it is justifiable, however, to include expected consumers' rent and indirect advantages to the extent to which the State takes them into consideration. Quite similar principles apply to non-commercial State enterprises which are not to give any cash income.

Interest is thus included in the investment calculation. Dispositions after the building of the plant must, however, be based on the actual scarcity of capacity, which may involve both more and less than normal interest. In the investment calculation constructions that can be continuously adapted to demand by proportionate building costs have the same effect as the corresponding operating activities. In the case of railways or bridges, where a plant of minimum size is usually more than sufficient, or in cases when the additional cost in case of an extension of the plant is rapidly decreasing, payment of the marginal costs will often fall far short of covering the average or total costs, which in the building calculation has partly to be covered by the expected consumers' rent. In the former cases changes in prices and technique may cause profit to be greater or smaller than the interest. In the latter cases the indivisibility of constructions, moreover, provide a reason for lower prices, especially during the first years.

If a work of public construction is at the same time serving other public purposes, as for instance the unemployment policy, the advantage obtained hereby must be deduced in the building costs. It is the great advantage of the amalgamation of interests and possession that the question of payment does not prevent the utilization of unused capacity.

If all economic conditions remained unchanged, and expansion could take place continuously, the result would be the same as that obtained by a rationally interpreted principle of costs and inclusion of interest, since under these circumstances it would be possible to predict and plan the economy of the plant in a uniform way throughout the whole of its life. The advantage to be reached, which is so much needed in a world of changing prices and technique, is that of being able to make the arrangement which is most profitable at any moment, irrespective of conditions only belonging to the past. At the construction of the plant one is to act with a view to the future, and in the operation with a view to the present and the future, irrespective of the past. This is achieved by abandoning the rigid principle of including interest in costs, which—on the ground of classical assumptions and with a limited basis in past experiences—presupposes a stable and anticipated development, and the possibility of continuous investment.

WAGES AND UNEMPLOYMENT IN SWEDEN
1920–30

GÖSTA BAGGE, *University of Stockholm*

ABSTRACT theory cannot alone explain an actual situation; and it can never be more than a—no doubt indispensable but insufficient—tool in deciding what measures should be taken regarding practical economic and social problems. This is obvious in respect of "static" theory, but holds true just as well in "dynamic" theory. Dynamic theory when logically and consistently constructed—which certainly is not always the case—seems, so far, to be even more abstract and intricate and just as difficult to adapt to actual situations and practical problems as the various kinds of static theory. Empirical, primarily statistical material is necessary, not as a "verification" of abstract theory, but to ascertain what postulates of abstract theory may be safely used for the explanation of a specific actual situation, just as abstract theory is necessary for the choice of such empirical material as is best suited to give its contribution to the object aimed at.

The choice of postulates, and logical deductions from them, which are practical from the point of view of explaining a specific situation or the consequences of a certain policy, must thus be based on the empirical material; the compilation of that material will give a general picture of the actual process showing which factors are dominant and which are not important enough to be reckoned with in the interpretation of the problem. In regard to the dominant factors it will often be worth while using theories, explaining what would happen if "other things remain equal" and the dominant factor alone changes in quantity, i.e. the ordinary equilibrium method.

Such a combination between abstract theory and empirical studies will often give the result that different theories, put forth as excluding each other, are all quite useful although for different purposes.

This has been specially evident in the discussion of recent years regarding the causes of unemployment, *i.e.* the theory of wages. Two opposite theories of wages—or of unemployment—can therefore both be perfectly "true," depending on different historical circumstances which may make the one or the other theory, or perhaps both theories, applicable, by making their postulates appropriate for the interpretation of the situation under consideration.

The aim of the study undertaken by the Swedish Unemployment Committee in co-operation with the Social Science Institute in Stockholm has been, preparatory to a report on unemployment policy, first to make a presentation of abstract theory relating to wages and unemployment—including, of course, those parts of the general body of economic theory to which wage theory is specially related—and then to collect and analyse available Swedish statistical and other empirical material relating to the decade 1920–30 from the viewpoints given in the theoretical part of the study.

This paper will give a very short summary of the main results reached in the published part of the Committee's report and its appendices and the conclusions which can be drawn from them. Material and viewpoints have also been freely used from a still unpublished appendix by Mr. Dag Hammarskjöld, the secretary of the Committee. For the interpretation of the results and the conclusions drawn therefrom the author of this paper is alone responsible.

The statistical material brought together and compiled by the Committee and the Institute gives the following general picture of the unemployment situation in Sweden during the decade 1920–30.

As in several other countries the figures of unemployment rose during the deflation crisis of 1920–21 to a level much higher than ever before reported, they dropped again during the years 1922–23 to 1929–30 to a level which, however, remained very high, probably about twice as high as before the war. During the depression and crisis of 1931–33 the unemployment figures went up again a third step, which during the first half of 1933 reached the same height as in 1921–22.

The Swedish unemployment figures are to be found in the monthly reports of the percentage unemployed in the trade unions. The Unemployment Committee has carefully examined this material—which only relates to industry and commerce—and has found, *inter alia* by comparing them with other statistical sources, that they can be used as an indicator of the general development of unemployment in the country.* The pre-war figures are probably somewhat too low in relation to the post-war figures, but as a general picture of the development of unemployment the above-mentioned conclusion that the general level of unemployment during the period 1922–23 to 1929–30 was about twice as high as before the war will hold good. It has thus been established that a very considerable augmentation in "permanent" unemployment, regardless of cyclical and other short-time variations in unemployment, has taken place in Sweden during the decade under consideration. What are the other data relating to this situation?

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* In order to get a measure of the absolute volume of unemployment at a certain time and also to get other detailed information regarding the unemployed the Committee arranged a special census of unemployment in 1927.

The rate of increase in the total population was practically constant from 1890 to 1925. In the period 1925–30 the rate of increase was only about half as great. The cause of this development is a combination of the fall in the birth-rate after 1910 and the heavy decrease in emigration during and after the war. These factors have, however, also affected the age distribution of the population, which from the point of view of the labour market is of great importance. The productive age groups, 15 to 65 years, which in 1910 were 59·9 % of the whole population, were in 1930 66 %. As a result of these different movements the relative increase in the age groups 15–65 years during 1920–30 was about the same as during 1911–20 and greater than the immediately preceding decades. Because of the fall in the birth-rate after 1910 there has since 1925 started a definite fall in the absolute figures of the productive age group.

It has been suggested that the decrease in emigration might also have had a special influence on the extension of unemployment, as the emigration before the war may have acted as a regulator of the Swedish labour market. As a matter of fact, the cyclical movements of Swedish emigration to America have been almost wholly dependent upon the *American* business cycles, decreasing in bad times and increasing in good times in America. It is only if good times in America should have happened to coincide with bad times in Sweden that emigration fortuitously could have relieved the Swedish labour market in this way, but not as a regular factor. Moreover, the emigration hardly had any direct relation to the conditions on the industrial labour market in Sweden, as the emigrants almost wholly came from the agricultural population.

The Swedish unemployment figures already mentioned relate only to industry, commerce, and transport. Agriculture and forestry have always been and still remain very important factors in the Swedish labour market, whose most significant feature since the seventies has been a permanent movement of the population from the agricultural to the industrial field. The results of this movement are, however, only registered at the decennial population census, and as the compilation of the census of 1930 has not yet given even preliminary figures, nothing is definitely known regarding the migration from agriculture to industry during the decade 1920–30. From other material it seems probable, however, that the agricultural population has not moved over to industry at the same rate as earlier. This seems also to be confirmed by the different development of agricultural and industrial earnings.

To sum up: the supply of labour in industry, as far as it is influenced by demographical factors and is represented by the number of persons in the productive age groups, does not seem to have been augmented in such a way that this factor could serve as an explanation of the general level of unemployment during the decade under consideration in comparison with the pre-war situation.

Preliminary figures from the Social Science Institute's study of the national income in Sweden 1860–1930 show that the volume of production has expanded vigorously since the war. According to these figures the national income of 1927, in terms of 1913 purchasing power, was nearly 30 % above that of 1913, the two years taken for comparison being approximately in the same position as regards the economic cycle. The figures are, as already pointed out, only preliminary and the percentage given can certainly not be taken as an exact measure of the expansion, but they seem, compared with other available data, to give a good indication of the direction and the rate of the development before and after the war.

The data regarding the volume of saving are in Sweden, as in other countries, very inadequate, but suggest a development more than proportionate to that of the national income. The same tendency is strongly reflected in figures available regarding the production and import of industrial capital goods.

In relation to the total population the national income, according to the same figures, rose from 1913 to 1927 20 %, and in relation to the population in the age groups 15–65 years 11 %.

The increase per head of national income and saving has thus probably been considerable, and factors hitherto studied in the empirical material do not seem to be of any direct interest in the search for an explanation of the extension of unemployment before and after the war. The data given above would alone indicate a decrease and not an increase in unemployment.

We shall proceed, then, to the study of the material regarding other factors which theory indicates as important for the unemployment situation.

A structural change in consumption has no doubt taken place, probably as a consequence of the increase in national income and the decrease in the number of children per family. This change in consumption in Sweden after the war seems to have been largely directed towards products and services of branches outside industry proper and not recorded in the industrial statistics: retail trade, motor transport, building trades, amusement industries, etc.

Several of these branches of activity no doubt require a relatively high proportion of labour and less capital. On the other hand the higher standard of the lower income classes might have augmented the demand for standardized, machine-made goods, *e.g.* clothing, which demand proportionally more capital and less labour. At present we are not in a position to produce adequate data to show the net result of the changes in the structure of consumption. For the present we shall have to exclude this factor from our calculations. It does not, however, seem to have been of decisive importance in respect to our problem.

The total value of imports and exports more than doubled between 1913 and 1929, and at the same time the relation between the prices of export and import goods was very favourable for Sweden, which thus received comparatively more imports in exchange for exports. This development of Sweden's foreign trade, and especially the expansion of the export industries, was no doubt one of the most powerful factors of the increase in national income already mentioned.

It is, however, possible that the augmentation in the demand for labour through this increase in national income (and saving) may have been to some extent counterbalanced by a relative increase of the import and a relative reduction of the export of goods demanding a high proportion of labour, and conversely of goods demanding a relatively low proportion of labour. In regard to imports it is difficult to establish any such tendency, but the expanding export industries no doubt belong to the part of Swedish industry that demands most capital.

It is also interesting to note that the export industries that seem to have led the development of national income in Sweden during the post-war decade, *i.e.* the wood-pulp industry, the paper industry, and the engineering industry, show the most decisive decline in the relative use of labour. Such a change in the methods of production is, however, not limited to these branches only but extends to the whole of Swedish industry. The predominant feature in the "rationalization" that Swedish industry underwent during this period was no doubt the mechanization and the adoption of labour-saving methods of production.

To obtain a satisfactory measure of such technical changes is hardly possible. The relation between the quantity of production and the number of workers can, however, be used as a general indicator. If the figure for the volume of production of manufacturing and mining in Sweden for 1915 is taken as 100, the corresponding figure for 1920 was 93 and for 1929 147, an increase by about 50 %; if the number of workers in manufacturing and mining is taken as 100, that for 1920 was 111 and for 1929 121. The number of workers per unit of production, taking 1915 = 100, was 119 in 1920 and 82 in 1929. The figures available furthermore show that this process of rationalization mainly took place during the five-year period 1924–29, when the yearly increase of capital goods for industrial use (production *plus* import *minus* export) augmented by 68 %.

These and other figures indicate a radical change in the methods of production, which must evidently have meant a very heavy displacement in the *relative* demand for labour in Swedish industry compared with the pre-war years; although, at the same time, such a process of rationalization no doubt was, at the actual relation between product prices and wages, an important condition for the expansion of production, especially in certain export industries.

We now pass to the last factor that may have been of special importance for the "secular" or "permanent" development of unemployment, *i.e.* the change in the general level of wages and cost of labour.

The real wages per annum in manufacturing and mining rose on the average 28 % from 1913 to 1929, 19 % from 1913 to 1926, and 22 % from 1913 to 1927. If workers in building, commerce, and transport are included, the rise in real annual wages is 37 %. The cost of labour in manufacturing and mining, measured by wages per hour in relation to prices of industrial products, increased by 71 % from 1913 to 1929, by 55 % from 1913 to 1926, and by 59 % from 1913 to 1927. Material enabling us to gauge possible changes in the efficiency of labour has not been available. There is no doubt, however, that the most striking feature of the period under consideration is the extraordinary increase in the labour cost of industry.

The divergence between real annual wages and labour costs began during the years around 1920, and is so far to be ascribed mainly to the shortening of hours of work. It was further increased by the difference in development of the cost of living and the prices of industrial products. From this peak, attained largely by the legal regulation of hours of work, the general level of labour costs was never to be brought back to a level more parallel to the development of other factors relevant to the labour market.

The material thus gives the following general picture of the unemployment situation in Swedish industry in 1920–30 in comparison with the pre-war conditions.

The augmentation in the number of persons in the age groups 15–65 years seeking employment in industry does not seem to have been greater than before the war. There has been a substantial increase in national income and probably in saving and accumulation of capital both absolutely and to a smaller extent per head of the population. The methods of production in industry have been radically changed, mostly in the form of labour-saving mechanization. The cost of labour has risen out of proportion to the changes in other factors. Unemployment has risen to a level about twice as high as the level before the war.

The dominating features in this general picture are, besides the rise of the unemployment level, the increase in the cost of labour and the change in methods of production in a labour-saving direction, the "rationalization of industry." The possible relations between movements in these three factors should therefore serve to explain how the situation on the industrial labour market under consideration has arisen.

Abstract theory has demonstrated why a change in methods of production which demands proportionally more capital and less labour, and which is not counterbalanced by a sufficient augmentation of the volume of saving, ought to cause either lower wages or unemployment.

If rationalization in a labour-saving direction is the consequence of better technical knowledge and not merely of a new relation between cost of labour and other costs of production, then rationalization may counterbalance the reduced demand for labour through an increase in the volume of saving based on a larger national income. Such a process will, however, as a rule require a fairly long period of time, and as the wage level has not been lowered but conversely has risen in an extraordinary degree, such a rationalization must have caused unemployment. We likewise know that a rise in the cost of labour can by itself make it profitable and often necessary to change over to labour-saving methods of production. A plausible explanation of the situation is, therefore, that the rapid rise of labour costs has been conducive to the extended rate of rationalization and has thereby caused unemployment. The question whether the incentive to the change in technical methods has in fact been this rise in wages or some other circumstances is of interest also because in the first case it is less probable that the technical change imports an advance in technical knowledge and thus makes possible a counterbalancing of the reduction of demand for labour in the future. In both cases, however, unemployment was the result of the relation between the change in technical methods and the rise of the wage level. More light can be thrown on the character of this relation by a detailed treatment of data year by year.

This is at least a good working hypothesis arrived at through the combination of theory and the main features in the general picture given by the empirical material.

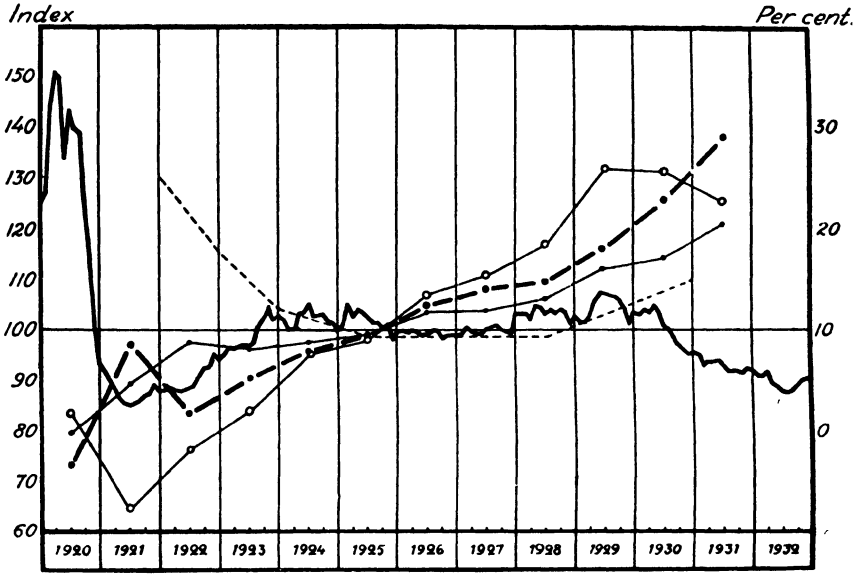
We will now go further into the details of the material to see if they correspond to the hypothesis or not and also, if possible, to throw some light on the short-time variations in unemployment during the decade 1920–30. A complete description and analysis of the material is out of the question here; only the movements of the factors chosen above and a few other facts needed for the explanation and the consequences of these movements for the unemployment situation could be considered in the space available. The chart on p. 699 illustrates the most important of these data.

The unemployment figures for each year 1920–30 reflect the three steps mentioned in the beginning of this paper. The period between the two depressions, both of which sent the unemployment figures soaring up to heights hitherto unknown, is divided into three parts: a falling wave from the middle of 1922 until the autumn of 1924, a rising wave from that date until the spring of 1927, and after that another falling wave until the end of 1930 when the new rise of unemployment due to the great depression began.

The annual average unemployment figures in 1920–1924 were: 1920, 5·4; 1921, 26·6; 1922, 22·9; 1923, 12·5; and 1924, 10·1 %. The drop in 1922–23 was thus very sharp and made the annual average for 1923 less than half the average for 1921.

To the increase in employment during these years corresponds an increase in the volume of industrial production. Taking 1913 = 100, the volume of the industrial production in terms of 1913 purchasing power was: 1920, 131; 1921, 106; 1922, 115; and 1923, 132. Already in 1922 the volume of industrial production was rising considerably, and in

1923 it had reached the level of 1920. For the whole national income the same index gives 120 in 1920, 94 in 1921, 97 in 1922, and 112 in 1923. The index for production per man-hour in industry (1915 = 100) rose from 114 in 1921 to 124 in 1922 and remained at about the same figure until 1926. The rationalization reflected in the rise in 1922 had the form of a reconstruction of industry after the crisis in 1921, probably based mainly on the old capital equipment, whose value was written down in a way that facilitated the coming expansion. The rationalization during these years does not seem to have to any large extent involved mechanization reducing the demand for labour. When the volume of production reached the 1920 level in 1923, the absolute number of workers in industry had thus begun to increase, and unemployment had, as mentioned above, already started its decline during 1922 down to the level of 1923–24.



INDEX SERIES: 1924–1926 = 100.

● ▬ ▬ ● Hourly earnings of male industrial workers in relation to industrial prices.

○——○ Volume of production.

●——● Volume of production per hour of work.

- - - - - - - - - Free-hand trend of the volume of money and credit (source: the above-mentioned investigation by D. Hammarskjöld).

▬▬▬ Inverted value of percentage unemployment (seasonal fluctuations eliminated).

This development is the more striking in the light of the movement of prices. Prices continued to fall, though not at the same rate as during the crisis. During 1922 the price index of the Board of Trade fell from 188 to 163, the cost of living index from 202 to 168. The price index for industrial products (1913 = 100) was for the years 1920, 1921, 1922, 1923, and 1924, 335, 242, 188, 176, and 170.

The volume of money and credit, as measured by circulating notes, money, or cheque accounts and unused overdrafts,* was steadily contracting during all the years under consideration until 1925. Evidently no explanation of the extended volume of production and employment is therefore to be derived from this factor.

Money wages were reduced during 1921 and 1922 to such an extent that real wages in industry were at a lower level in 1922 than in 1920. In fact, money wages fell at a more rapid rate than the prices of industrial products—the latter being 78 %, the former only 71 %, of the 1921 level. Labour costs were thus rapidly and considerably reduced during 1922, remained at the same level in 1923, and rose again in 1924. Taking 1913 = 100, the relative labour costs per hour (ratio of earnings per hour to index numbers of prices of industrial products) were thus: 1920, 108; 1921, 143; 1922, 131; 1923, 134; and 1924, 141.

The volume of trade in the sphere of consumption augmented during the same years, according to available statistics (*e.g.* regarding transport of different kinds of commodities), and the index for the volume of production does not show the same rate of expansion for production commodities as for consumption commodities. Taking 1915 as 100, the numbers for the former industries are, for the years 1920, 1921, 1922, 1923, 1924, 93, 62, 75, 85, and 103, but for the latter industries 93, 83, 95, 112, and 109.

The situation in the years 1922–23 was thus characterized by a reduction of labour costs that was more rapid than the fall in product prices, a fall in product prices more rapid than the contraction of the volume of money and credit, an increase of the trade volume in consumption commodities and a rapid recovery in production and employment. The reduction of labour costs at a more rapid rate than the decrease of product prices, together with the above-mentioned reconstruction of industry, brought about a situation in which prices of products no longer fell below costs of production. In this way the expansion of production was made possible, although product prices kept falling and the volume of money contracted.

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* A common form of lending money in Swedish banks is to give the customer a credit involving the right to draw cheques on the bank up to a certain amount. As long as the borrower has not used the credit to the full amount granted by the bank, the margin represents money at the disposal of the borrower in the same sense as money on an ordinary cheque account. For lack of an adequate word in English for this margin the term "unused overdraft" is used here.

This process during the years 1922–23 seems to be a matter of general interest, as it shows that a decrease of labour costs can under certain circumstances bring about the recovery of production after a crisis and that a reduction of wages need not contract the volume of trade in consumption commodities and thereby counterbalance the recovery.

The volume of production continued to grow until 1930, reaching in 1929 the index number (1915 = 100) 147. The declining curve of unemployment had, however, reached its minimum already in 1924 and began again to rise until 1928, from 10 % in 1924 to 12 % in 1927; in 1928 and 1929 it fell again to the level of 1924. Industrial product prices continued to fall during the whole period, from 170 in 1924 to 153 in 1929 (1913 = 100). The volume of money and credit stopped decreasing in 1925, was constant until 1928, and then rose considerably in 1928–30. The volume of trade in consumption commodities seems to have expanded until 1930, with two drops, one in 1925 and one in 1928, both probably related to changes in the agricultural production. None of them, however, coincides with changes in unemployment. Neither do the changes in unemployment during the period 1924–27 coincide with changes in the main factor behind the increase of production, the expansion of exports.

The conformity during these years between the development of unemployment and two other factors, wages and mechanization, is all the more striking.

Money wages per hour began rising in 1924 and increased continually each year until 1932. Relative labour costs per hour in industry (relation between earnings per hour and prices of industrial products) show a small increase already in 1923, but otherwise only differ from money wages in so far that their movement upwards is still more marked. The break in the unemployment curve and that in the wage curve are thus simultaneous, as also the increase in unemployment and wages during 1925–27. Rationalization, as registered by production per man-hour worked, went on steadily after a drop in 1923 and increased at an accelerated rate from 1926. Moreover, it now changed from the reconstruction of industry in general in 1922–23, mentioned above, to labour-saving mechanization. There is no doubt that this acceleration of the mechanization of Swedish industry and its effect on the demand for labour were the main reasons for the increase of unemployment during 1924–27 and the relatively high level of unemployment during the following years, though lower than in the former years because of the still more rapid increase of the total volume of production during these years. This expansion of production was parallel with an increase of the volume of money and credit which started in 1928 and lasted until 1931.

The process of rationalization was, of course, influenced by several circumstances, but the figures given above seem to indicate that the main incentive came from the rise of the wage level. Other information affirms this observation. A study of rationalization in Swedish industry during the period under consideration by Professor Gustav Åkerman, published as an appendix to the report of the Unemployment Committee, shows that in the concerns studied by Åkerman wage increases have, in fact, as a rule been the cause of the mechanization. The number of cases studied is not very large, but being the only detailed study of the subject it affords good support to otherwise observed data in the same direction.

Among the most significant of these data are figures showing the import during the different years of machinery used for the mechanization of important industries of different types. Compared with wages per hour, relative labour costs and production per man-hour, the three series show a remarkable correlation for each year and industry. Such a correlation affords, of course, no conclusive proof of the causal relation, but a close study of the material gives very little room for doubt that as a rule the wage increases must have been the historically prior factor and the incentive to the mechanization during these years. Nor does the material give any other plausible explanation of the process.

If this is the causal connection between increase of wages, mechanization and extent of unemployment during the period 1924–29, as shown by the development year by year, it must also hold true in regard to the development of the "permanent" unemployment before and since the war, which has been shown above to be due mainly to the relation between wage level and rationalization.

The mechanization was specially characteristic of the expanding export industries in 1924–29. These were at the same time leading the general expansion of industrial production. The result was that the productive resources of the country were during this period to a much larger extent than previously directed towards industry. At the same time the absolute increase in population in the age-groups 15–65 was more than three times greater than the increase in the number of workers in industry.

The rest of the population, with the exception of the persons absorbed by the new "service-industries," the building trades, construction of roads, etc., had to stay in agriculture and forestry, where "real wages" remained at a level lower than the pre-war level and the general standard of income had fallen much below that of the industrial standard.

The reason why this situation has not resulted in a more extensive movement from agriculture to industry is, no doubt, besides the regulations of the trade unions within industry, the rationalization and unemployment in industry.

The situation during the decade 1921–30 was thus characterized not only by a high level of industrial unemployment but also by very great differences in standards of income and living between different occupations, especially between agriculture and industry. If these differences had caused a more extensive movement of population from agriculture to industry and the forms of regulation of wages had still remained the same in the two fields, unemployment would have been considerably augmented. If the same regulation of hours of work and wages had prevailed in agriculture as in industry, and the development of labour costs in agriculture had been parallel with that in industry, the extension of total unemployment would also have been much greater than the actual one. One reason why unemployment did not increase more than it did was therefore the combination of the lower level of wages, etc., in agriculture and the hindrances to a more extensive movement of population from agricultural to industrial occupations.

In the summer of 1930 the depression first began to make itself felt in Sweden and was inaugurated by a decline in exports. Industrial unemployment started to increase anew during the last months of 1930, the increase in unemployment progressed steadily during 1931 and 1932, and by the beginning of 1933 had reached the same level as in 1920–21. Wages per hour kept on rising during 1930, stayed at that level in 1931, and dropped to the 1929 level in 1932. The wage policy in 1931–32 was then quite the opposite of that in 1922–23. A detailed study of the influence of this wage policy on unemployment during the depression is not yet possible. It seems *a priori* obvious that a reduction of wages, however heavy and however skilfully applied, could have hindered neither the extension of the world-wide depression to Sweden nor its consequences in the form of increased unemployment. Another question, however, is the influence of the wage level on the actual volume of unemployment during the depression. This question cannot be definitely answered before a closer study of the material has been carried through. But already now it can be established that the influence of wages on "permanent" unemployment, which has been traced above, has to a considerable degree added to the high level of unemployment during the present depression. It also seems probable, in view of the general situation in 1930–32—the conditions of trade in Sweden were, in fact, quite favourable until the spring of 1931, in spite of the international depression—that there was ample scope for a skilful and flexible wage policy aiming at influencing employment during those years, and that thus the actual, very rigid wage level during the present depression also contributed to the extension of unemployment.

The material presented and this attempt at an analysis, though of course far from exhaustive, attribute to the movement of the wage level a considerable influence on the extension of unemployment in different directions, both in regard to "permanent" and to "cyclical" unemployment. One can, if one chooses, declare or deny that this shows that the movement of wages is a "cause of unemployment." Such a discussion is merely playing with words, and as such is not very interesting. The result of our study is, rather, that under certain constellations of different factors relevant to an unemployment situation, there may be considerable scope for the wage level to influence unemployment, that such constellations evidently occurred in Sweden during the period under consideration, and that they were so constituted that the industrial wage policy was in all probability a dominating factor in lowering or raising the level of unemployment.

THE ASPECTS OF ECONOMIC HISTORY

ELI F. HECKSCHER, *University of Stockholm*

In the last few years there has arisen a new interest in the right treatment of economic history and in the relations between economic history and economic theory. More and more it has become clear that the historical and the theoretical treatment of economic phenomena are not mutually exclusive methods, but that, on the contrary, theory is needed for the understanding of economic development, and history for applying theory to the right sort of premisses.

One of the many problems to which this new insight should be applied refers to the divisions or partitions of economic history. The number of books and articles upon that subject is already, if anything, too large, and no good can come out of making each new contribution engender its own offspring. Therefore I shall refrain from reviewing what has already been said upon the subject, only sketching the broad lines of the earlier treatment and indicating an approach, which I already worked out somewhat more in detail in Swedish a few years ago.*

I

It should be made perfectly clear at the outset that such divisions have no existence in actual life. They are creations of the brain of the scholars themselves, to be regarded as a convenience, a help to understanding, and are necessary simply on account of the inability of the human intellect to grasp as a whole complicated developments or relationships when they are not split up into a number of sections. In such cases, the proof of the pudding is in the eating; there can be nothing right or wrong in any system of divisions, so long as they enable us to understand what has really happened. But some of these methods may be confusing, and others may be based upon mistaken notions of what they are able to achieve, so that their character is far from being a matter of no importance.

Now, history, as generally understood, means something which "develops" in time, so that what goes before is necessary in order to explain what comes after. A systematic treatment of economic phenomena, as they appear in different ages but irrespective of their chronological order—presented with unrivalled mastery by Max Weber in his posthumous lectures, called in their English form *General Economic History*—is properly speaking not economic history at all, but economic sociology. If we stick to economic history, the divisions of the subject nearest at hand are of the same sort as those used for other sides of history, i.e. chronological sections, divided according to features which the historian regards as being of outstanding importance to the development of that society which he is studying. It would not occur to an historian that, in his choice of "periods"—a word used in history in a sense rather different from that applied in economic theory—he would have to be guided by the same set of phenomena in each case; his periods would be entirely non-theoretical. He might, e.g., create one period for the rise and high-water mark of Greek culture; a second one for the Hellenistic empires; a third for the building up of Roman power; a fourth or fifth for the domination of the Papacy; a later one showing the results of the great changes following upon the political and economic revolutions of the eighteenth century, and so on. There is no *principium divisionis* in this, except the chronological one.

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* *Den ekonomiska historiens aspekter* (*Historisk Tidskrift*, vol. L, Stockholm, 1930, pp. 1–85).

In the same way, economic history may be divided into chronological periods. If that is the real meaning of the demands for a use of "economic styles" (*Wirtschaftsstile*) or "economic systems" (*Wirtschaftssysteme*), no more need be said. What is considered characteristic of economic life belonging to a separate chronological section will then be used as a basis for the period in question; and if the choice is a good one, bringing out what makes us understand real relationships and conditions, that treatment has justified itself. But in that case, as in those just now given from general history, it will become necessary to change your point of view from one period to another. One of them may be made to start from changes in the position of labour, another from the system of exchange, a third from the use of capital. It must not be supposed that the different factors of economic life are always to be found together in the same relative shape, so that, e.g., natural economy might always be found with either workers owning their own means of production or the reverse, with much or small use of capital, with extensive or insignificant use of credit, etc. Almost all sorts of combinations are possible, though not all are probable; and though each of the component parts will show different features according to the existence of other parts, no particular type of one part is confined to any particular type of another one.

If this is granted, the use of "economic stages" (*Wirtschaftsstufen*) cannot be considered fortunate. For they are usually meant to be at the same time expressions of the development of a separate factor in economic life and expressions of the dominating character of a chronological period. If what has just been said is true, this must in any case be unfortunate, as periods may be distinct from fundamental points of view, though showing no difference with regard to the factors being used as *principium divisionis*. To take the best of all these systems of "stages," that of Bruno Hildebrand, separating natural and money economy, it is certainly unpractical to lump together all the important changes that have taken place since money economy came to dominate the economic life of our society within one single period. It might even happen that a difference which is important at one time becomes more or less irrelevant during other periods, and, thirdly, that a later period goes back to conditions which have occurred at earlier periods with regard to the factor in question, without reverting to the character prevailing at those earlier periods in other respects. To take another instance from the same system of economic stages, there was a relapse into natural economy in different countries after the World War; but this did not at all mean that economic conditions generally showed any resemblance to those of the early Middle Ages, because the reason for the prevalence of natural economy was quite different in those two periods.

The only possible solution appears to be to separate "period," meant to bring out the characteristic features of a given chronological section of history, on the one hand, from developments with regard to one particular economic factor or part of economic life, on the other hand. It is this second sort of treatment that I propose to call the use of "aspects" of economic life, the treatment of the development of economic conditions throughout the ages with regard to each side of economic life separately. It is quite clear that, in this latter case, we are unable to get a complete view of economic life at any given period; but if the aspects are well chosen, we might still be able to understand more of the true meaning of economic changes than by lumping together all the changes during a chronological section under the name of a "system" or "style." It is more to the point to say that both methods are necessary in order to understand actual developments, and that they may be combined in many different ways, besides being treated separately.

It is quite clear also that the use of "aspects" of economic life means separating different parts of a connected whole, such as is the case with regard to all sorts of divisions. This separation can hardly be overlooked with regard to the "aspects," as that very name suggests looking at your subject from a particular angle, consequently preventing you from seeing it in its entirety. The need for it is the same as the need for economic theory; and the treatment will have to proceed along the lines of a system of economic theory. As these systems are very diversified, it is possible to approach your subject along many different roads, none of which may lead you astray, though one may be more convenient than another. The whole method presents many similarities to the practice, prevalent at one time, of showing the history of the different parts of the economic system as an introduction to a theoretical treatment of them. The only question that can be raised is whether anything valuable can be brought out in that way. Though the space at my disposal makes it necessary to confine myself to the headings of the subject, or very nearly so, I hope to be able to show the use of this method.

As a starting-point I shall choose a system of economic theory arranged along familiar lines. Beginning with economic activity itself, we first get the price system, and afterwards exchange, leading up to money. The rest refers to the two groups of prerequisites of economic activity, supply and demand. Supply contains the factors or agents of production, namely, nature, or land and raw products; man, or population and labour; capital, or the factor created by man; lastly, business organization, closely connected with capital. With regard to demand, on the other hand, it is difficult to make any subdivisions; it must be treated as a whole. Let us briefly glance at these categories, considered as aspects of economic history.

II

As to the price system, the first question refers to its existence or non-existence. It is true that the basis of the price system, i.e. the insufficiency of the means for satisfying human wants, has existed in all societies yet known to man. But it is quite otherwise with the superstructure, a price system equalizing supply and demand. For many centuries the restriction of demand to the amount of supply to a very great extent has been created, partly or altogether, by other methods than prices; for different reasons prices have been kept too low to limit demand sufficiently for creating an equilibrium. "Customary" prices of all sorts, e.g., customary rents, have usually been of that character; usury legislation as well as prevailing ethical tenets have caused lending without interest, or at a rate below equilibrium-point, resulting in an excess of demand which has had to be restricted by other means; price regulations inside the gild system, which in itself meant a restriction of supply, must have had the same effect; and lastly, maximum prices in other fields must also have necessitated a restriction of demand by other means, as is well known from the experiences of the World War. Enormous as are the materials amassed for knowing outward happenings in this field, I do not know of any single investigation bearing upon the working of economic life under these conditions. Already this instance is, to my mind, enough to show how much real insight into economic history is to be gained by applying theoretical aspects to it.

Coming now to periods and conditions governed by an effective price system, the important thing is the different forms of prices. Foremost among questions referring to this are, first, the prevalence of "the law of indifference," or its opposite, price discrimination; secondly, competitive and monopoly prices. With regard to the first of these problems, the well-known medieval market regulation, continued well into the nineteenth century, aimed at securing price uniformity through concentrating exchange in the market-place, though the success of this policy should certainly not be taken for granted, as many influences prevailing at the time worked in the opposite direction. The most important among these was the prevalence of monopoly. There are few instances more characteristic of the insufficiency of theoretical knowledge among economic historians than the treatment of the history of monopoly. It appears to be generally believed that monopoly is a creation of "capitalism," whatever that much abused word may mean, whereas the fundamental basis of monopoly, or the restriction of output, seldom has found a more consistent form than in the craft gilds, that characteristic product of the "pre-capitalistic" era. Only a study of the craft gilds from the point of view of the price system can tell us anything of fundamental importance with regard to the influence of the gild system upon economic life, as distinct from other sides of its manifold effects. Such a study is far from easy, and we shall certainly remain for ever in ignorance of a great deal of what we want to know upon the subject; but this is no reason for avoiding questioning our sources about things which are necessary to carry us into the heart of economic relationships.

In giving these instances of what the price aspect might tell us with regard to economic history, I have kept to the static point of view, the explanation of the character of economic life at a given time. The dynamic aspect, referring to the factors which have changed one sort of economic relationships into another, is perhaps even more difficult and more important. As economic theory itself refers much more to static than to dynamic conditions, it is not to be expected that it can be as useful for such purposes as for that of explaining the character of economic life at a given moment; but it is indispensable to both.

Leaving now the price system, we come to exchange. The starting-point there clearly is whether any exchange exists at all. The absence of exchange means self-sufficiency. Properly speaking, self-sufficiency is altogether outside real history, as it presupposes a Robinson (without his Man Friday); for already inside the household exchange takes place between services and commodities. If, however, we look upon the household as the basic unit of society, we arrive at that "closed household economy" which Karl Bücher made the first of his "economic stages." It is not at all clear that he understood the limitations of his concept, being confined to the aspect of exchange, instead of a general system of economic relationships; otherwise there can be no objection to this category as explaining the major part of economic life. But it should be borne in mind that self-sufficiency predominated over exchange in the case of the majority of the people in the majority of European countries well into the nineteenth century, so that the idea of confining it to the early Middle Ages is a mistaken one.

In so far as exchange takes place, we have the important distinction between direct exchange, also called barter, and indirect exchange. The difference consists in the absence or presence of a third commodity, coming between the one given away and the one required. Indirect exchange, in its turn, falls into two sharply divided categories, according as the intermediate commodity is like any other commodity, or, on the contrary, is a generally accepted medium of exchange, called money. Indirect exchange without money means two (or more) consecutive barter transactions, as the commodity to be sold is exchanged for another, which is *not* the one required and so must be sold again, in return for the commodity which the initial seller has had in view from the beginning. The existence of a common medium of exchange changes all this and creates money economy. In contrast to money economy, Bruno Hildebrand placed what he labelled natural economy, which includes in fact all the three other stages, i.e. self-sufficiency or absence of exchange, direct exchange or barter, and indirect exchange without the use of a generally accepted medium of exchange. The absence or presence of money as a common medium is of such fundamental importance that this treatment appears extremely fruitful and consequently eminently justified. It goes without saying that money economy in its turn must be split up into a number of subordinate divisions.*

In this connection a few words must be said upon the system of "economic stages," as constructed by Karl Bücher and Gustav Schmoller. It is probably based upon some notion of the development of exchange, but does not seem very happy. I refer to the series "closed household economy," "town economy," "territorial economy" (the original contribution of Schmoller), "national economy," and "world economy." The underlying idea appears to be the distance traversed by the commodities from the producer to the consumer; but such a movement clearly lends itself only with a great deal of difficulty to being split up into distinct categories, as it is continuous. Take the case of a modern European town. It gets its bread from inside its boundaries —"town economy." Bricks may be taken from the adjoining district— "territorial economy." Textiles, machinery, and so on, may come from inside the country, over extremely varying distances—different cases of "national economy." Coffee, spices, rubber, etc., come from over the sea, again from places at very different distances—"world economy." It is submitted that nothing is to be gained by such artificial distinctions as these, and the probable explanation of their ever having been created is the common failing of mistaking the aims of economic policy for economic realities.†

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* I have studied these questions more fully in some other articles, viz. *Natural- und Geldwirtschaft in der Geschichte* (*Vierteljahrschr. f. Soz.- u. Wirtsch-gesch.*, vol. xxiii, 1930, pp. 454–67), and *Natural and Money Economy as Illustrated from Swedish History in the Sixteenth Century* (*Journal of Economic and Business History*, III, 1930–1, pp. 1–29).

† The name "town economy" is unfortunate even irrespective of this. It is used to describe a society the great majority of whose members lived outside the towns. And more than that, they must *ex hypothesi* have been so living. For as the towns were dependent upon outside supply of foodstuffs, there were only two alternatives open to them, either having a large countryside inside their political borders, in order to supply the food, or importing it from foreign countries; and the second alternative would have transformed "town economy" into a "world economy."

III

Upon leaving the price system and exchange we embark upon the limitless sea of supply conditions, and far less of what is relevant with regard to their treatment can even be mentioned here. Something may, however, be said to illustrate my point of view.

Nature as an agent of production lends itself less than any other to historical treatment, as it has changed very little in historical times, i.e. since the beginning of our knowledge of human society. Historically, the important thing with regard to nature is the attitude of man to it. This means, in the present case, first and foremost, the development of technical knowledge, and its history means not only a possible but a very fruitful aspect of economic history. Few factors have been more dynamic, i.e. have done so much to change the existing order of things, and a very great deal of the study of economic history properly belongs to this aspect. In the first place, this holds good with regard to those studies of the changes in the human attitude to their environment which were initiated by Max Weber and followed up by Werner Sombart, besides a host of minor luminaries, as one of the most important roots of "modern capitalism." Though some of the notions of these scholars were naturally exaggerated and even mistaken, they belong to the best contributions to economic history yet published.

The next agent of production is man himself, being both the agent and the end of economic activity. From both points of view population becomes the first object of study, and its importance to economic history cannot be exaggerated. It presents, however, many difficulties. One of them is the absence of reliable data for most countries before the nineteenth century; but in this brief sketch I must reluctantly leave aside a discussion of the chances of arriving at the data necessary for forming our conclusions. Even apart from this, however, it is difficult to make the history of population a basis of economic history for longer periods, because, at least as far as we are able to judge, it shows no definite tendencies before the nineteenth century. If I can read the signs aright, the birth-rate was about the same for centuries before the last 150 years, leading to successive waves of over-population, i.e. an extremely variable death-rate, but only fairly slight continuous upward or downward trends. This would mean that the over-population theory of Malthus has been correct with regard to conditions prevalent before his own time, quite irrespective of its applicability to later periods. But it is still possible that this view may be mistaken; and in so far as reliable materials can be found to prove or disprove it, they are of course of exceptional importance to our knowledge of economic history.

Whether the view of Malthus has held good for the greater part of human history or not, it is possible to study the factors influencing increases and decreases of population. With regard to the nineteenth century, both available sources and changes in actual conditions make it a problem in the first rank of interest; but even before that time not a little may be gathered, even if numerical data are not forthcoming. Investigations might be made into what was done in order to prevent an increase in births or to get rid of an unwelcome offspring, and, in so far as neither occurred or was sufficient to prevent over-population, of how the "positive," i.e. repressive, checks of Malthus were at work. The relations between the "preventive" checks—in their widest sense—and the adherence of the people to the standard of living, or tendency to raise it, should be studied. Moreover, changes in hygiene are of course very important in this connection. All this refers to population from the point of view of consumers; but demographical influences upon productive capacity are also very important, especially if combined with a study of prevailing customs with regard to the division of labour between men and women, the age at which children were put to work, the hours of labour, and so on. These subjects are well known, but they should be studied in connection with economic life as a whole, and as an explanation of it.

If, next, the more or less demographical side of the human factor in production is disregarded, the most important problems belong to what is usually called the history of labour and wages. Few parts of economic history have been more eagerly studied, often very profitably; but many parts of it have been neglected or taken up from points of view that do not give an insight into their importance to economic life.

The last-named tendency holds good with regard to the freedom and servitude of the workers. As Sombart has already pointed out, most students of serfdom during the Middle Ages have failed to notice whether there was any appreciable economic difference between the free and the un-free labourer; their point of view has been legal and social, not properly speaking an economic one. From an economic point of view, liberty and serfdom are of interest in the first place on account of their influence upon the mobility of labour, both between localities and between occupations; but this extremely important factor was influenced by many institutions besides the existence of serfdom or its opposite, perhaps by the state of the poor law more than anything else. But quite another situation is created if real slavery should arise. For it usually meant a distinct form of labour organization, as was the case both in ancient times—to some extent—and in some of the American colonies. A systematic study of the history of slavery from an economic point of view is still lacking, so far as I know; but it would mean a very important aspect of economic history, and would go far to explain the development of Greece and Rome, as well as that of the Southern States of North America, as its—negative—dynamic importance has probably been very great.

Coming now to the problems of the free labourer, we are in the thick of the battle between the different schools, and it is impossible to do justice to the subject in a few sentences. But some fundamental results appear to emerge, and they have sometimes received less attention than their due.

As is well known, Karl Marx emphasized the importance of the question whether the worker was owner of his means of production, excluding of course from that expression the worker's own labour power, which was the most important among them. Interesting as that view may be, it appears to me that another one has been kept too much in the background, and that is the worker's connection with the market. The worker can keep in contact with the market, whether he works for unknown purchasers or to order, and whether his customer is the final consumer or a middleman; and though working for unknown purchasers requires more commercial ability, the difference can hardly have been decisive, as is shown by the comparatively insignificant differences which sometimes exist between modern business concerns of the one type and the other. But the very requirement of getting into contact with the market, i.e. by working for more purchasers than one, must have taxed the ability of the medieval artisan heavily. The question is, How was he able to cope with it? The usual answer appears to be that demand inside the small towns and their immediate neighbourhood was very stable. But this appears doubtful, when the prevalence of wars, pestilence and famine is remembered. It seems to me that the influence of the craft gilds, working as modern cartels, must have counted for a great deal; and the sources should be questioned more incisively on that point than has hitherto been done. In any case, the contact with the market was the important thing. This is well brought out by taking a modern instance of what are probably the best-paid "workers" of all, i.e. the most successful among the barristers of

Anglo-Saxon countries, whose earned incomes are sometimes equal to that of a sterling millionaire. As is well known, they are absolutely prevented from approaching the final purchaser, i.e. the client, being briefed by "middlemen" in the shape of solicitors; and it goes without saying that they must work "to order." The explanation of their high incomes can only be their contact with the "market," in other words, that they are known to everyone standing in need of their services.

When that is changed and the worker is restricted to a single purchaser, his position is fundamentally changed, even if he still owns his means of production. It is true that he would probably even in this case be dependent upon the capital of his purchaser, the merchant, at least as advancing the price of the finished product, until it had reached and been paid for by the final purchaser; but this just emphasizes the view that the ownership of the material means of production was not the decisive factor, for that remained with the worker.

When the means of production became too expensive to be owned by every manual worker—in many industries, like the "heavy" metal ones, that stage came early—it would appear that the connection with the market would necessarily become broken. But such a conclusion would not hold good. It is extremely likely that independent craftsmen continued to exist long after they had to make use of appliances far in excess of their individual fortunes, especially with regard to the "mills" in the cloth industry, for fulling and other purposes. The solution appears to have consisted in the activity of municipal bodies and the craft gilds owning the mills and placing them at the disposal of the craftsmen. This probably presupposed a restriction of the number of craftsmen, and, as is well known, the *numerus clausus* became an important part of the gild system from an early date. Besides that contrivance, which should be studied more than has hitherto been done, the connection with the market could be kept up, even if the raw materials of the trade remained with the purchaser, as the modern case of tailoring establishments will show; the same craftsman would be able to work up materials belonging to different purchasers. But when the labour appliances went out of his hands, without being kept by an independent organization, like the town or the gild, his connection with the market became finally snapped; and in so far as this was the case, the point of view of Marx and the one brought forward here lead to the same result.

IV

The last few paragraphs have already touched upon what has generally been considered part of the problem of the rise of "modern capitalism." It must be said, however, that nothing good can come out of making the word "capitalism" into a jumble of disconnected notions, from the supposed rise of a "love of gain" to the disappearance of the manual worker from the market. The only reasonable use of the word appears to be to connect it with capital, in the sense used by all economic theorists worthy of the name. It goes without saying that that precludes the identification of capital with money, a notion which was exploded by David Hume upwards of two centuries ago. No man in his senses would maintain that factories or railways are built by gold and silver or bank-notes; and if it is not denied that means of production require capital in order to be established, it is impossible to treat capital as identical with money. Probably the historians of "modern capitalism" do not really mean the two words to be identical; but in that case their expressions are often unfortunate. Certainly a great deal remains to be done before economic theory and economic history cease to clash in this field.

If we consider capital as identical with all contrivances meant to satisfy future wants, it is as old as the history of man, though its importance has been widely different in various ages. In primitive culture there is far more need to emphasize the creation of stocks, the storing-up of consumable commodities, than the comparatively simple tools of labour; also the great building operations were sometimes important in this respect. All of it required saving, i.e. reserving part of the annual product for the consumption of workers who did not contribute to it, or who wanted to do without efforts for immediate consumption at a later date; and in so far saving, too, is as old as man. There is not, however, much to be gained by enlarging upon very primitive conditions; but the situation, say, in the Middle Ages is of great interest. The small part played by the productive apparatus in creating a demand for saving—amongst its causes the absence of an extensive iron industry probably stands foremost—might have been expected to make saving plentiful, as industry in modern times is the most important consumer of saving. But credit for consumption purposes was probably comparatively extensive during the Middle Ages, and still more important, saving certainly was small. This cannot be explained through a general equality of incomes; for most facts point to the conclusion that that equality is a myth. Rather, the true explanation appears to be that the rich were not at all that saving apparatus they have become in modern times; in other words, the difference in consumption, and expenditure generally, between rich and poor was infinitely greater in olden times. Consequently, saving had to be effected by much poorer people than the great of the land, i.e. by persons of a social standing below their standard of income; and their ability to save did not allow large amounts to be put aside. That savings were exceedingly scarce is shown by the enormous rates of interest that often had to be paid, 2 to 3 % in the month, and even 40 to 100 % in the year; this appears to show the incorrectness of the view that savings had difficulties in finding an outlet.

The first important increase in demand for saving came from seagoing trade, from the Crusades onwards, and to a far greater extent after the great discoveries of the new route to India and of America. The "waiting" needed to bridge the gap between the completion of technical production and final sales was greatly widened on that account, and the cost of trading increased also, though more for political purposes in the European settlements outside Europe than for purely trading purposes. In any case the result was a new demand for saving. This exercised a profound influence upon business organization, creating first the private companies of the Italian and Hanseatic merchants, afterwards corporations with a common capital and at the same time "perpetual succession and a common seal," usually called joint-stock companies. But it must be said that the need for capital, and even more the need for fixed or permanent capital, on the part of these trading concerns may easily be exaggerated. Trade generally requires rather modest amounts of capital, when compared with industry on modern lines, and its need for fixed capital is still less; the proof can be found in the fact that the joint-stock companies did not actually procure a stable company capital until late, though their charters allowed them to do so from the beginning. It is not at all improbable that the increase in the demand for savings for the purposes of consumption, on the part of the ever-warring European governments, was of greater consequence than that emanating from ocean trade.

The comparative smallness of the new forms of capital applications should be borne in mind when the much-debated question of the sources of saving is considered. The crucial period appears to be the sixteenth and seventeenth centuries, not the later Middle Ages, for a considerable increase in demand probably did not arise before the great discoveries around 1500. As to that period, the only group to consider appears to be the merchants, and probably not a few very wealthy people but the ranks of the common merchants, exercising a rather widespread saving. The idea that, e.g., the shares of the English East India Company were mostly held by a few rich merchants has proved a mistaken one; the most important shareholder in the second half of the seventeenth century owned less than 5 % of the stock, and 223 persons held more than £1,000 each. The Court and the nobility mostly sponged upon the undertakings, contributing very little by way of capital themselves.

It is a difficult question how far monetary conditions contributed to the increasing importance of capital. Money economy, in this field as in every other, greatly facilitated exchange and the creation of a market, but it came comparatively early. It cannot be said that the great influx of precious metals after the discovery of America was a necessary condition of either the spread of money economy or of an increase in saving. Without it, the expansion of money economy would have meant a fall in prices, but that would hardly have prevented such a development. Now the result was a great rise in prices instead, and the profits reaped by many merchants therefrom may have been used for increased saving. But this by no means follows necessarily, and even if it were a fact, it may have been comparatively insignificant. There is more reason to emphasize the influence upon speculation exercised by fluctuating prices. The rise and development of the stock exchange may have been influenced by that factor, reacting in its turn upon investments. Still, there is every reason to caution against exaggerations with regard to the influence of money upon secular changes in the structure of economic society.

The fundamental changes in the history of capital did not come until large amounts of saving came to be required for the production of real capital, i.e. before the production of consumable goods could begin; for that meant a decisive increase in economic activity with a view to future consumption. The basic prerequisite of this was a development of the iron industry, which should be studied as a central part of the history of capital; in comparison with that the textile trades must at best take the second place. There is every reason to go back to the eighteenth century as the most important in the history of capital, the "Industrial Revolution" being an expression which is as legitimate as such a label can ever be expected to be. The nineteenth century did not only see an enormous expansion of the same tendencies, but also an enormously increased use of saving for another purpose, which had counted for rather little before, i.e. the creation of durable goods, first and foremost for productive purposes, in the shape of lines for telegraphs, railways, water, gas, electricity, and so on.

These well-known facts are mentioned only by way of showing how the oft-told tale of the creation of the modern economic society will have to be treated if the hazy concept of "capitalism" is to be replaced by applying consistently the aspect of capital, properly speaking. There can of course be no objection to labelling the economic period, say, from the sixteenth or the eighteenth century onwards, that of modern capitalism, if this phrase is meant to express no more than that the importance of capital was the outstanding new feature of it. But it must then be made clear that the period contained also a host of other new tendencies, which should not come under the heading of capitalism, though they belonged to a period that was dominated by the spread of capitalism. In any case the aspect of capital, when applied to economic history, has to avoid the confusion between capital and other parts of economic life.

Finally, we come to demand as an aspect of economic history. It may be said to embrace all the aims of man, as all of them come out in his demand for commodities and services. How man has come to demand this and given up demanding that can only be explained through the whole history of the human mind. From the point of view of economic history the most interesting problem in this connection is probably the reactions of human work upon human aims and outlook; and as everyone knows, the so-called materialistic concept of history is one of the attempts to solve that problem, though probably not the most successful one. But besides this great theme many other general problems emerge, one of the most fascinating being perhaps that of the growing differentiation of human wants, which can easily be shown at the hand of available materials. Another subject of the same character is the increase in the democratic character of demand, that of the masses meaning more and more in comparison with that of the rich; the dominating feature of modern industry is mass production for mass consumption, while industry in earlier times was directed in the first place towards luxuries.

Qui trop embrasse mal étreint. There cannot be the slightest doubt that the previous pages have just hinted at far too many and far too great subjects, without getting to the bottom of any one of them. But the aim of this article has only been to indicate an approach to the study of economic history, and that could not be done without giving instances of the results which such a method is able to further. Nothing can be more barren than controversies over method, unless the methods recommended or criticized are dealt with in the light of what they are able to achieve.

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